

PRELIMINARY REPORT OF 050423

last update on Sat Apr 23 10:50:01 GMT 2005

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2005-04-22 00:00:00 to 2005-04-23 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	11	18	4	6	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	11	18	4	6	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	11	18	4	6	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	11	18	4	6	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	45	51	5	5	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	45	51	5	5	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	45	51	5	5	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	45	51	5	5	4

2.3 - Browse Visual Inspection

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20050422 063532
H	20050421 070709

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.340868	0.013605	-0.020550
7	P1	-3.116508	0.010270	0.011557
11	P1	-4.666981	0.032368	-0.002016
15	P1	-5.598744	0.045430	0.084312
19	P1	-3.705410	0.004047	-0.025346
22	P1	-4.554299	0.012147	-0.082893
26	P1	-4.906745	0.019925	0.055774
30	P1	-7.174615	0.024655	0.087612
3	P1	-15.768203	0.339727	-0.015990
7	P1	-15.524900	0.091570	0.013516
11	P1	-21.116674	0.450841	-0.381302
15	P1	-11.522921	0.055644	0.198255
19	P1	-14.316914	0.029035	0.002895
22	P1	-15.800623	0.318762	-0.318433
26	P1	-17.632589	0.177983	0.043944
30	P1	-17.916014	0.344757	0.202703

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.048389	0.082400	0.025552
7	P2	-22.223349	0.098909	0.024494
11	P2	-14.222492	0.109609	0.157803
15	P2	-7.063302	0.092569	-0.044605
19	P2	-9.646231	0.095625	-0.031677
22	P2	-16.885250	0.097344	0.019662
26	P2	-16.458694	0.095494	-0.047948
30	P2	-18.825748	0.086235	0.005468

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.166797	0.004354	0.002728
7	P3	-8.166797	0.004354	0.002728
11	P3	-8.166796	0.004354	0.002731
15	P3	-8.166796	0.004354	0.002731
19	P3	-8.166796	0.004354	0.002731
22	P3	-8.166796	0.004354	0.002731
26	P3	-8.166796	0.004354	0.002731
30	P3	-8.166797	0.004354	0.002729

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.728465	0.026258	-0.110583
7	P1	-3.006419	0.045573	-0.029119
11	P1	-3.979273	0.026835	-0.032616
15	P1	-3.538118	0.036612	-0.022464
19	P1	-3.618325	0.014041	-0.029804
22	P1	-5.701323	0.043843	0.090840
26	P1	-7.304643	0.025501	-0.034837
30	P1	-6.270958	0.062078	-0.059674
3	P1	-10.709586	0.158689	-0.171256
7	P1	-10.360395	0.177406	-0.186807
11	P1	-12.539520	0.139180	-0.118750
15	P1	-11.686372	0.098090	0.040057
19	P1	-15.600378	0.055689	-0.049388
22	P1	-24.886499	1.597327	-0.733257
26	P1	-15.577623	0.247644	-0.213268
30	P1	-20.173899	1.247896	0.048555

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.749357	0.038395	0.003579
7	P2	-22.303596	0.045538	0.039837
11	P2	-10.078742	0.058194	0.035938
15	P2	-5.030642	0.034439	-0.103828
19	P2	-6.864767	0.050413	-0.087988
22	P2	-7.084467	0.037506	-0.036547
26	P2	-23.876318	0.037211	-0.092206
30	P2	-21.906124	0.042574	-0.071339

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.002366	0.003525	-0.011155
7	P3	-8.002555	0.003515	-0.011104
11	P3	-8.002387	0.003520	-0.011125
15	P3	-8.002546	0.003526	-0.011687
19	P3	-8.002550	0.003515	-0.011479
22	P3	-8.002491	0.003506	-0.011178
26	P3	-8.002499	0.003515	-0.011409
30	P3	-8.002433	0.003515	-0.011280

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000479160
	stdev	2.16049e-07
MEAN Q	mean	0.000492515
	stdev	2.33512e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129483
	stdev	0.00104171
STDEV Q	mean	0.129746
	stdev	0.00105344



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005042[123]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050421_125414_000001212036_00339_16425_2813.N1	1	0
ASA_GM1_1PNPDK20050421_070832_000008822036_00335_16421_9019.N1	0	7
ASA_WSM_1PNPDK20050421_094756_000001462036_00337_16423_1117.N1	0	1
ASA_WSM_1PNPDK20050421_094808_000000672036_00337_16423_1231.N1	0	1
ASA_APM_1PNPDK20050421_082621_000000752036_00336_16422_1803.N1	0	2







7 - Doppler Analysis

Preliminary report. The data is not yet controlled



7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending


7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)



Ascending



Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler



Ascending



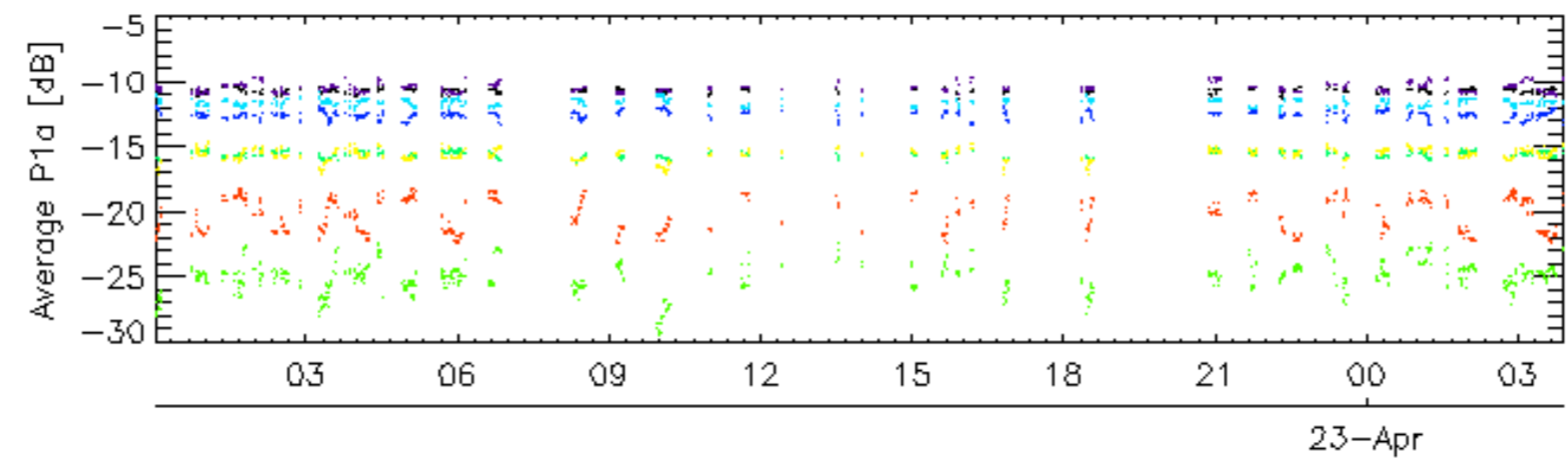
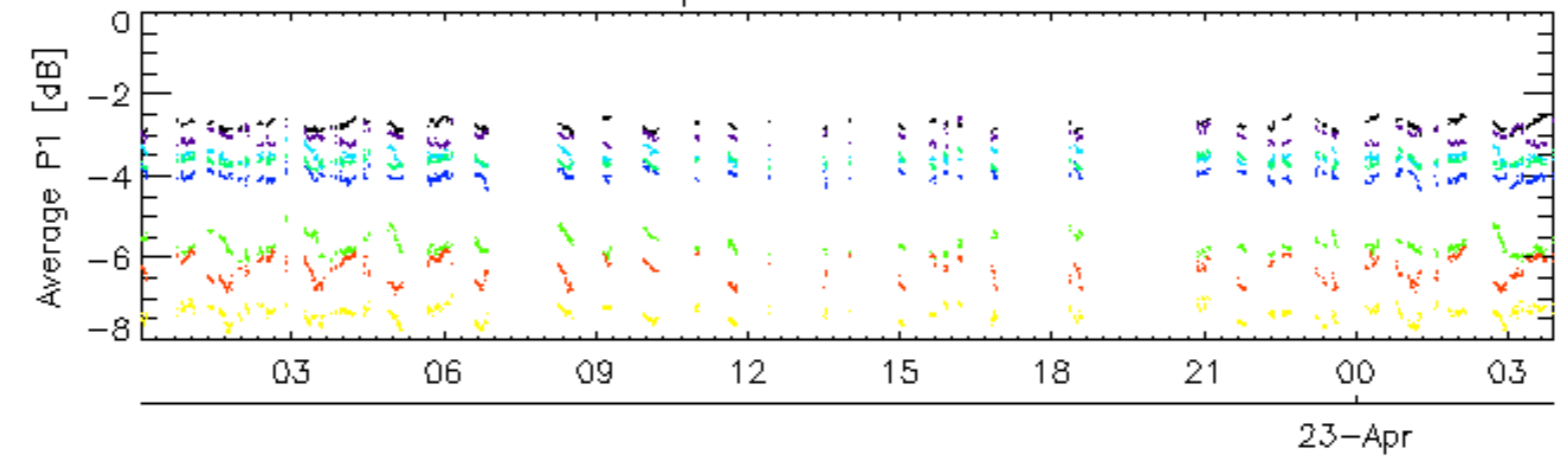
Descending

7.6 - Doppler evolution versus ANX for GM1

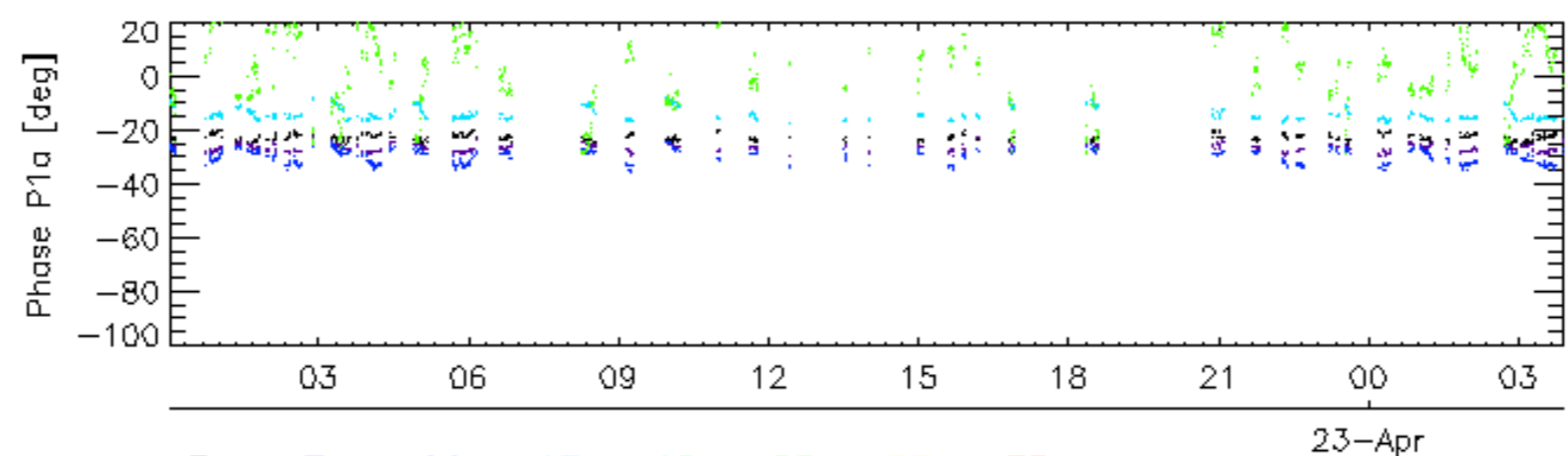
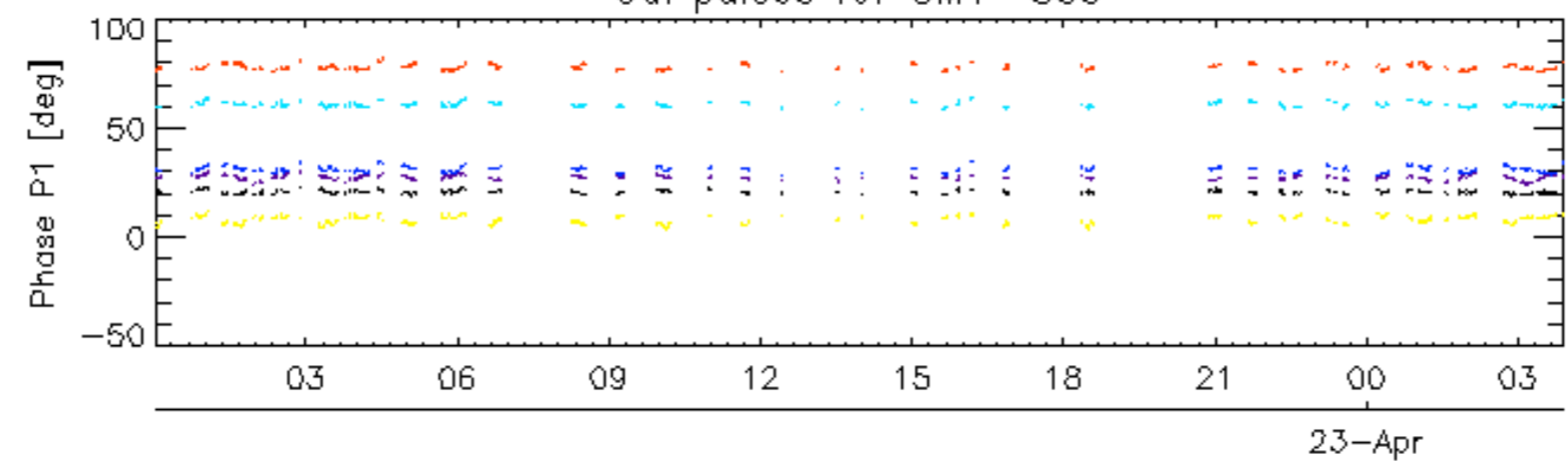
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

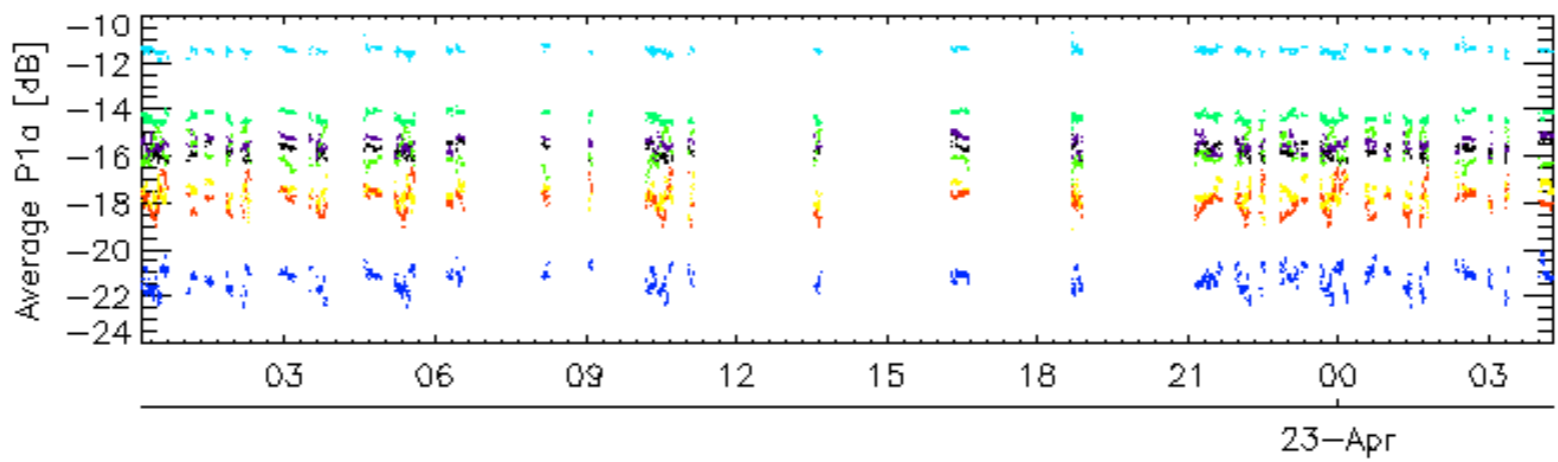
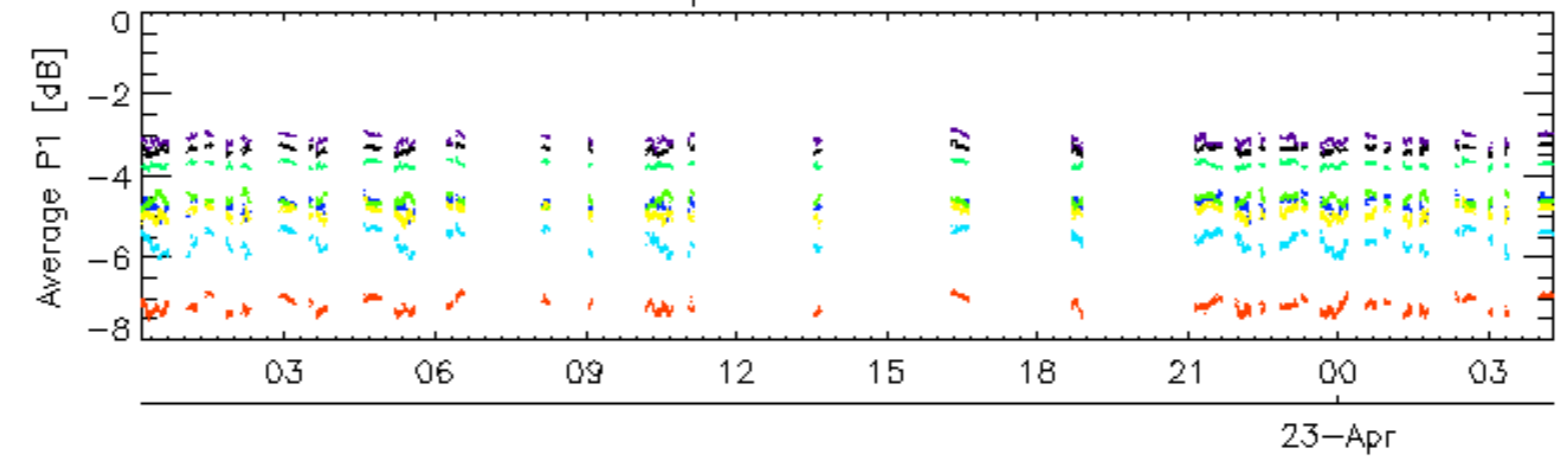


Cal pulses for GM1 SS3

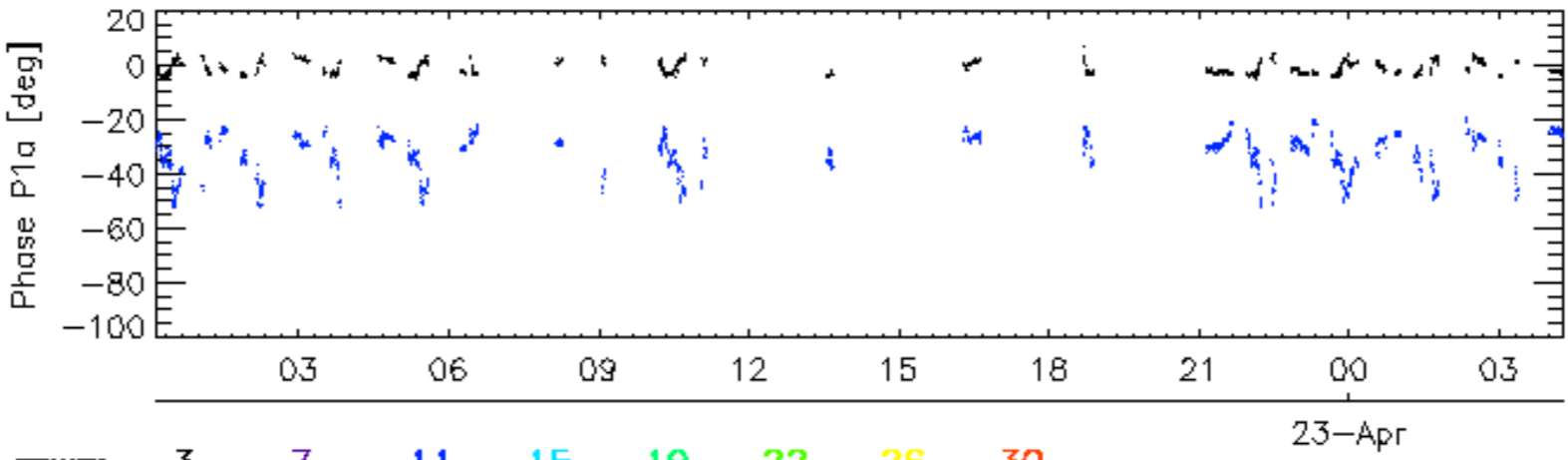
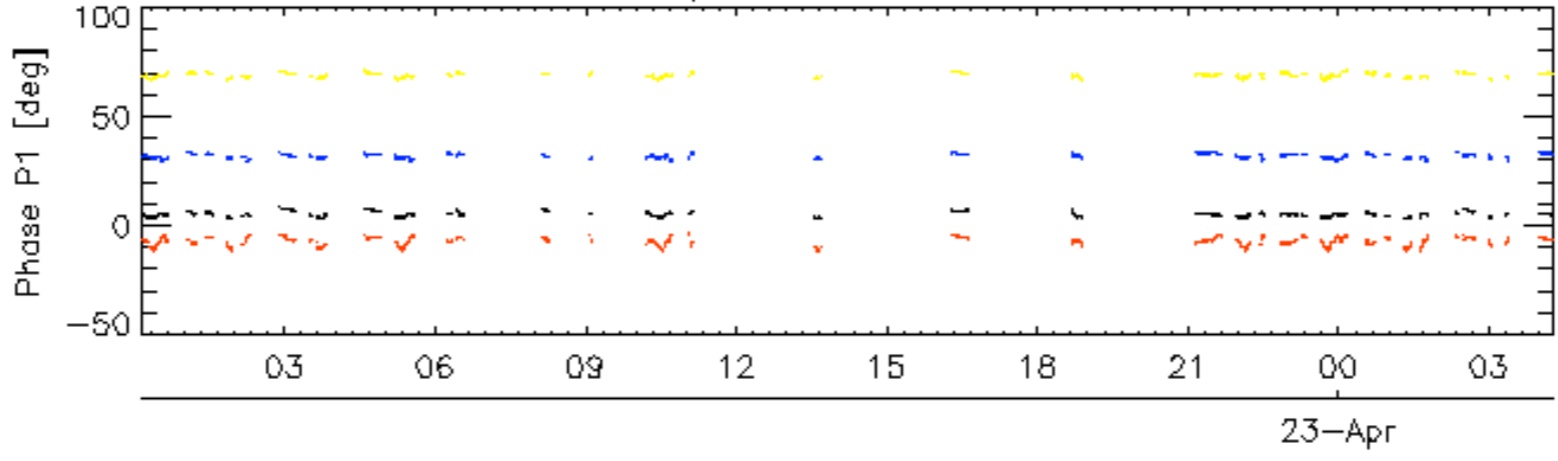


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

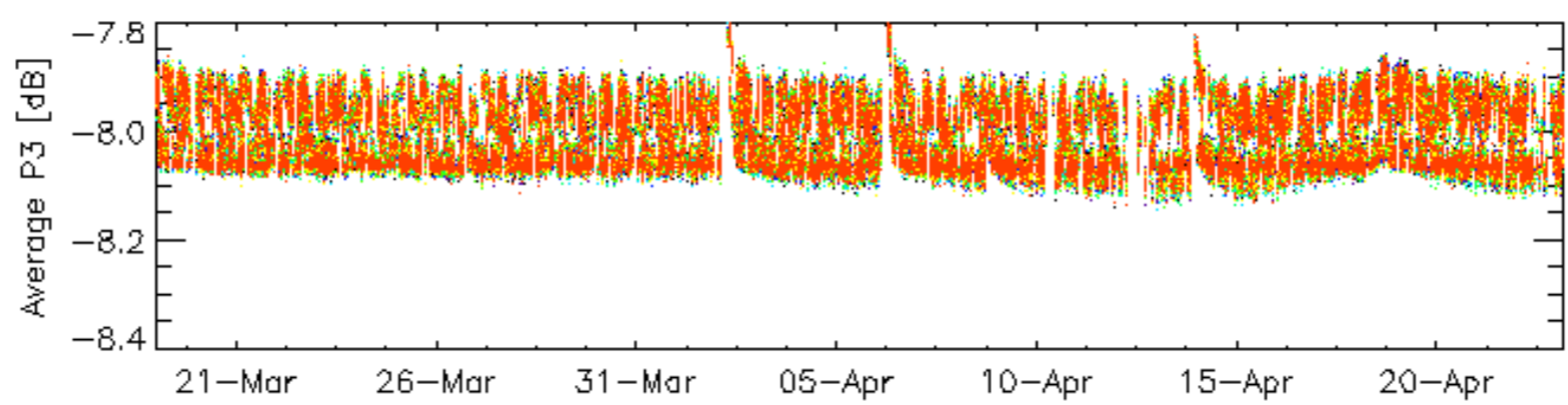
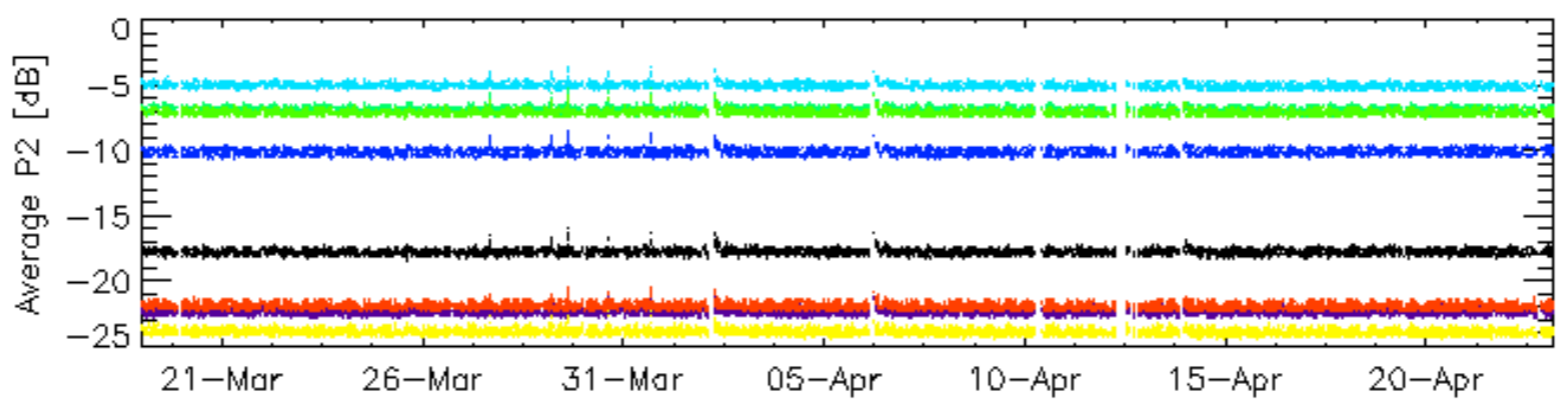
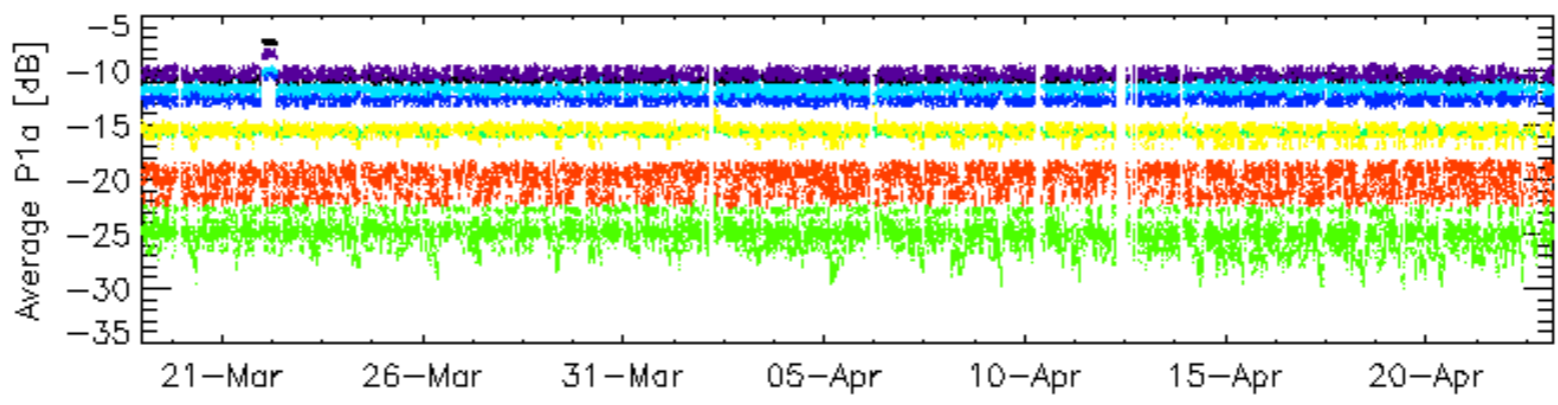
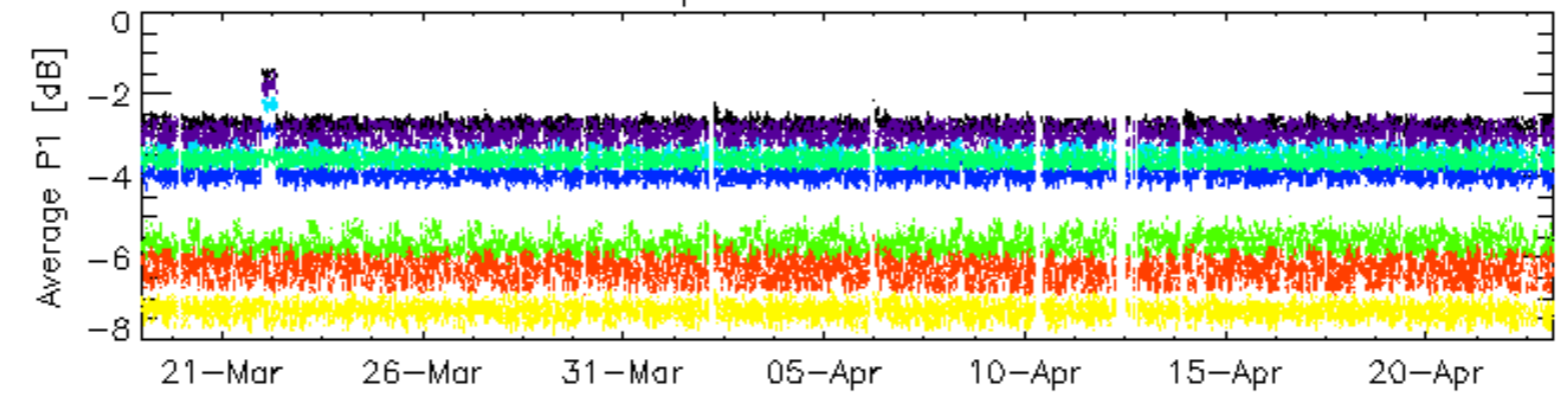


Cal pulses for WVS IS2



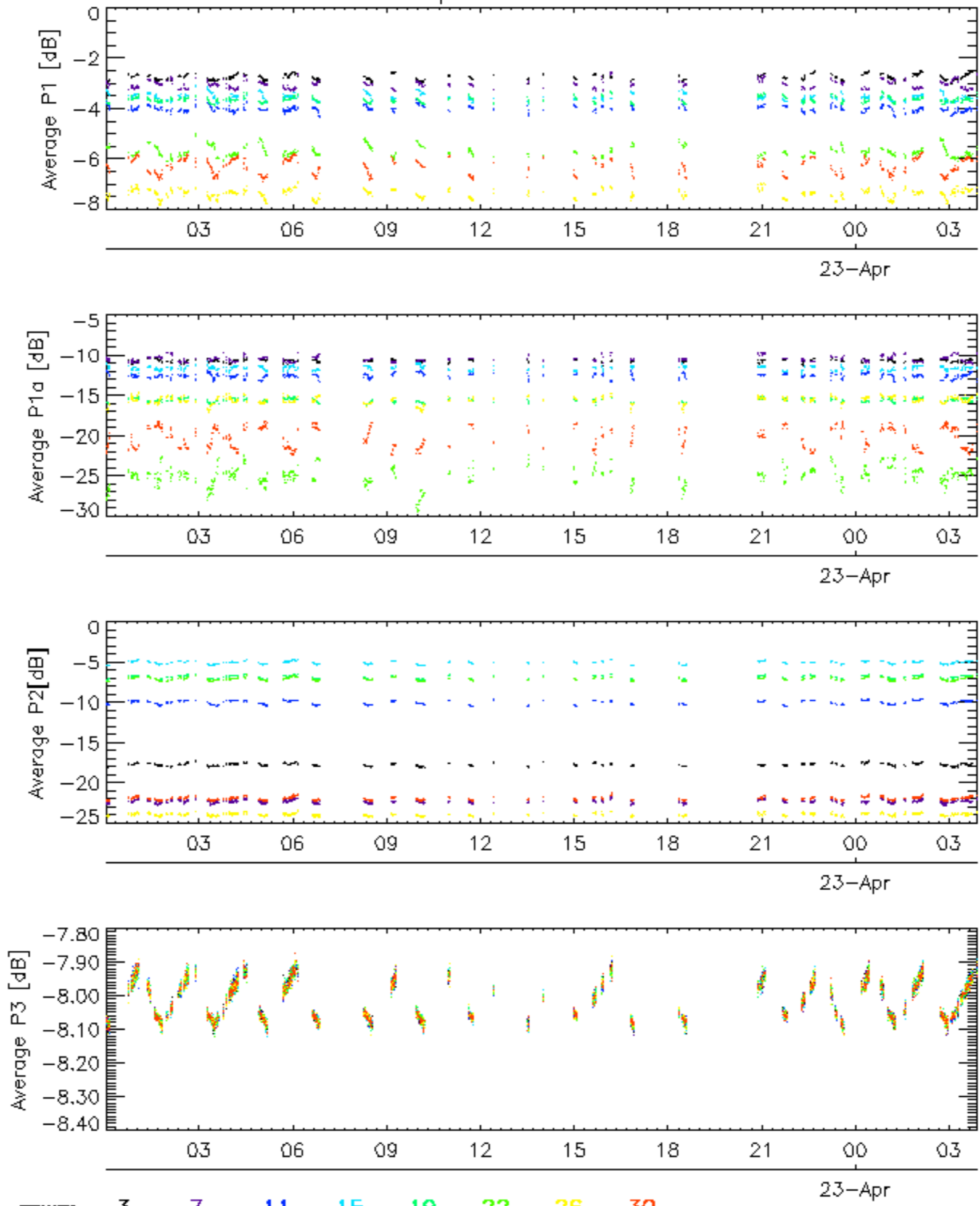
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

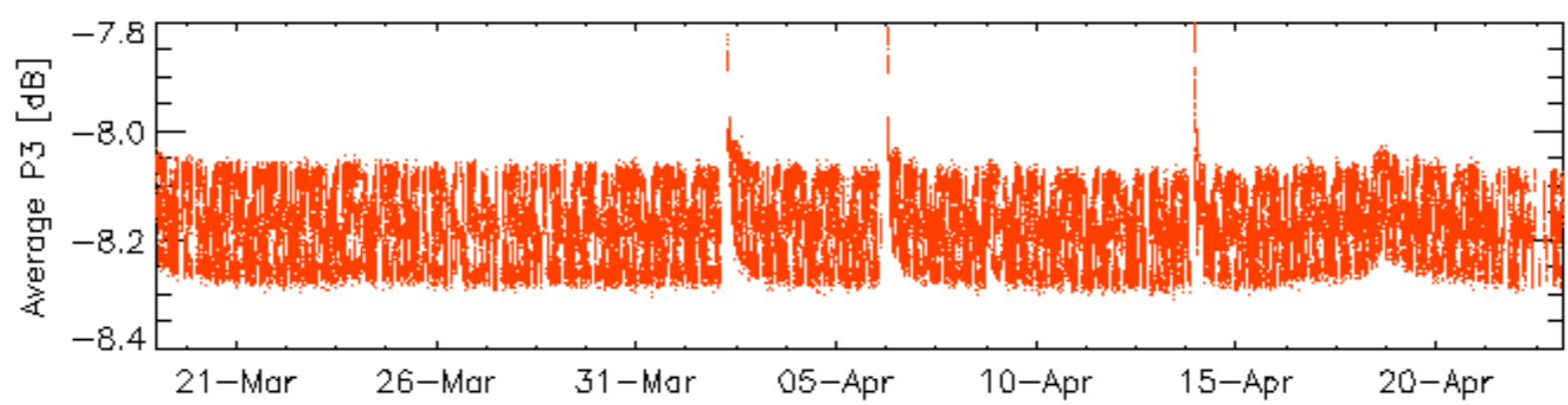
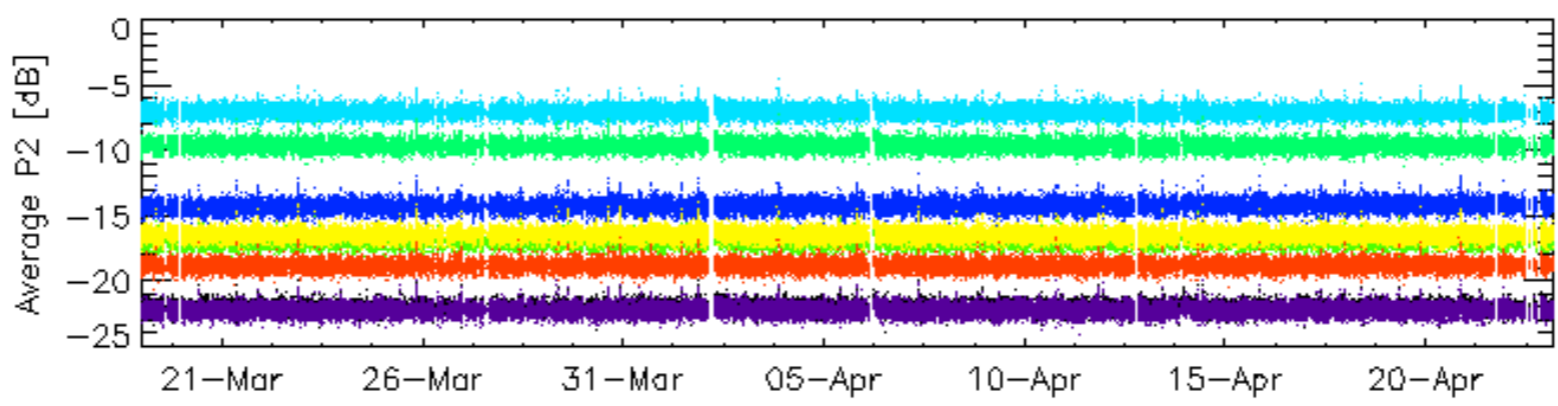
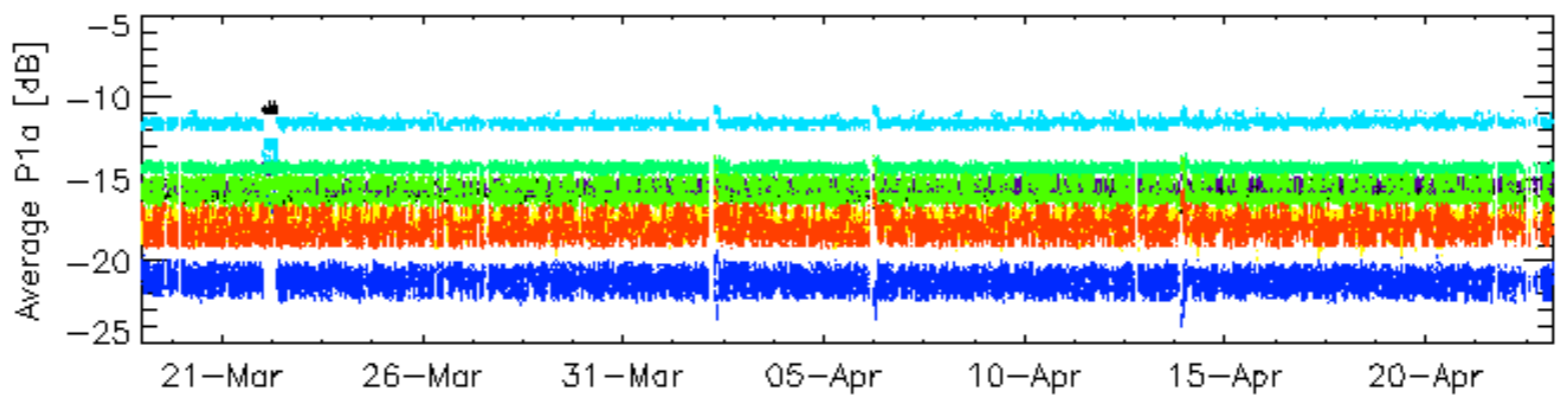
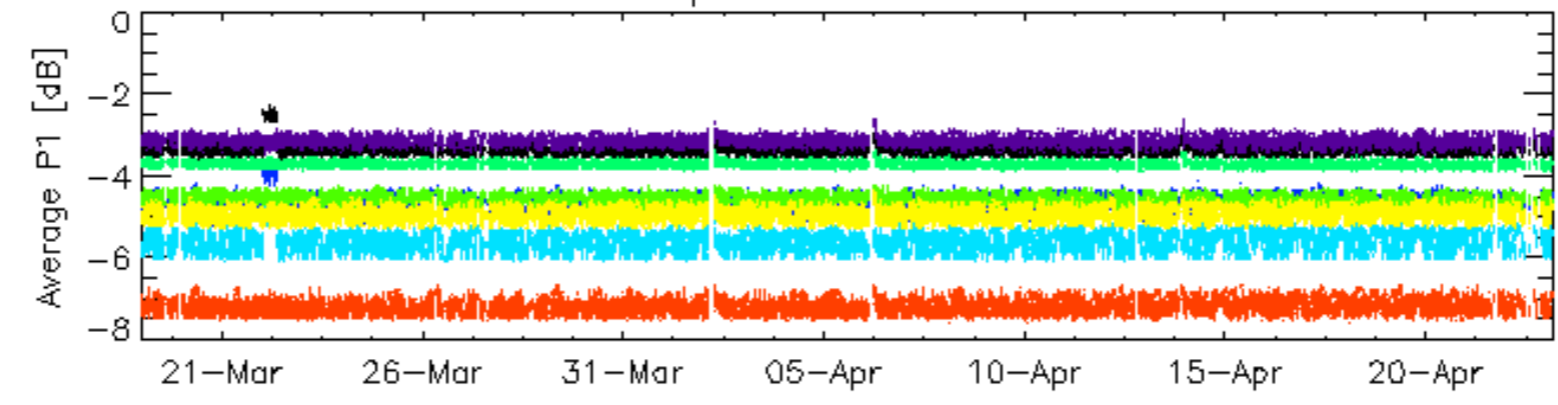


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

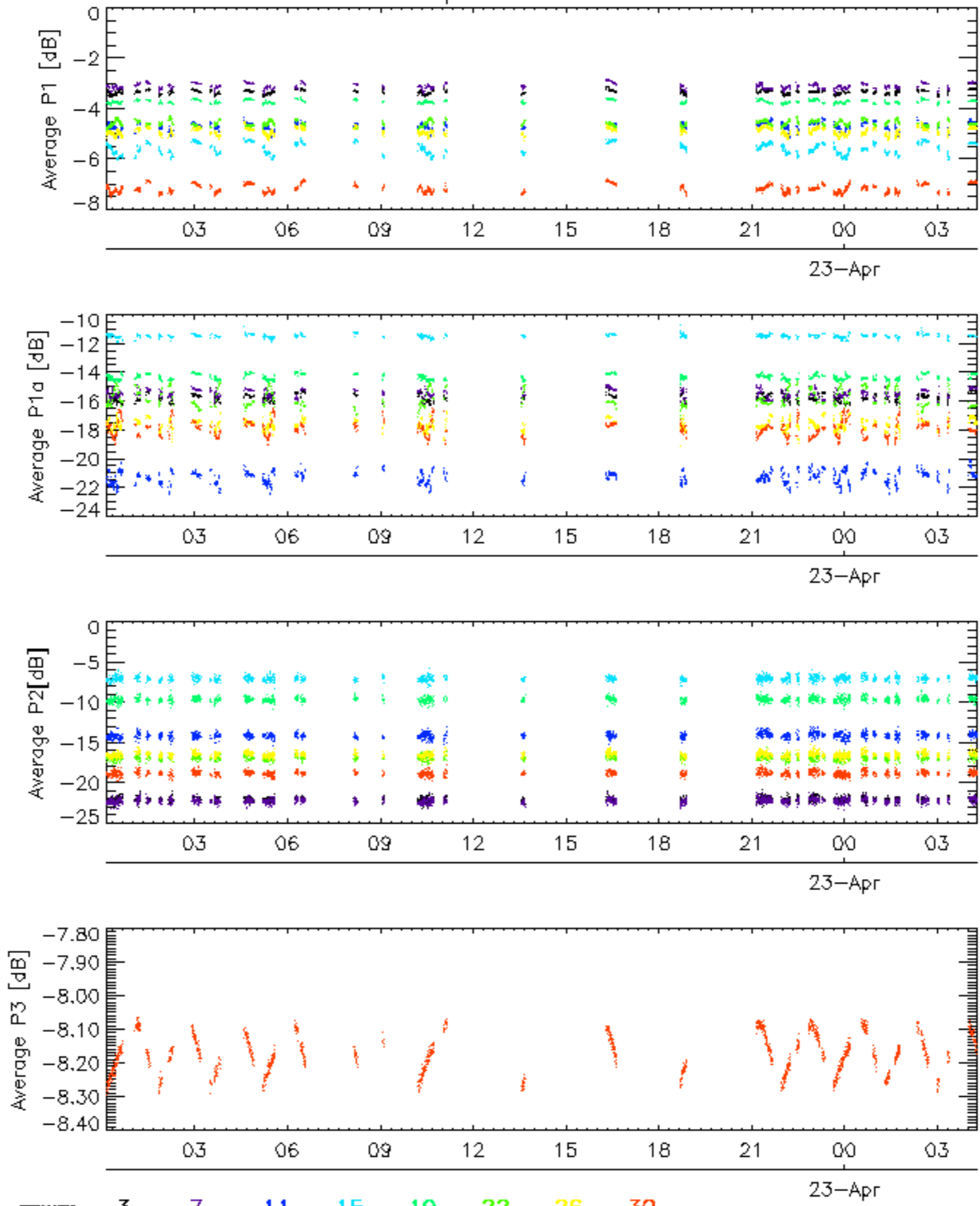


Cal pulses for WVS IS2



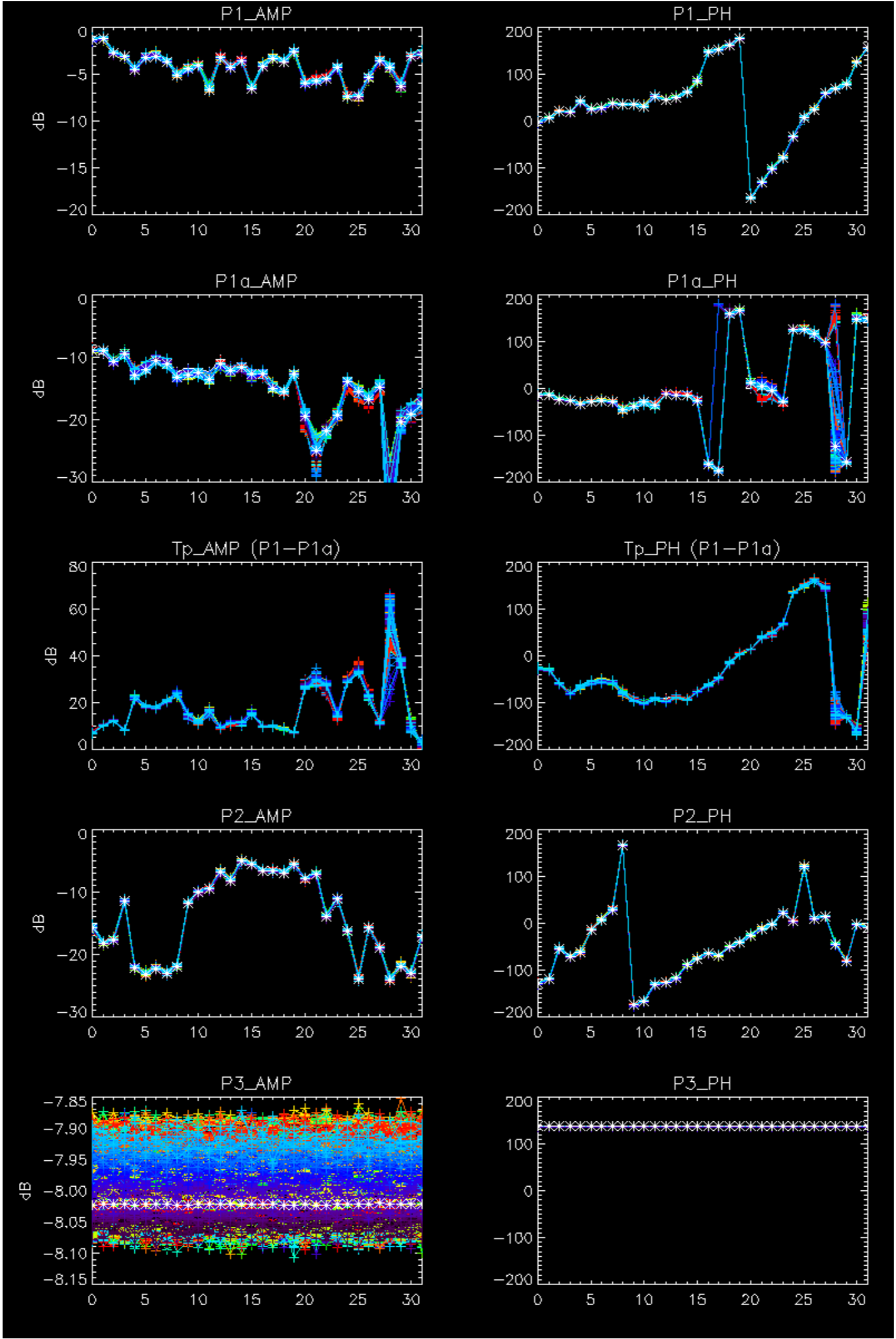
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

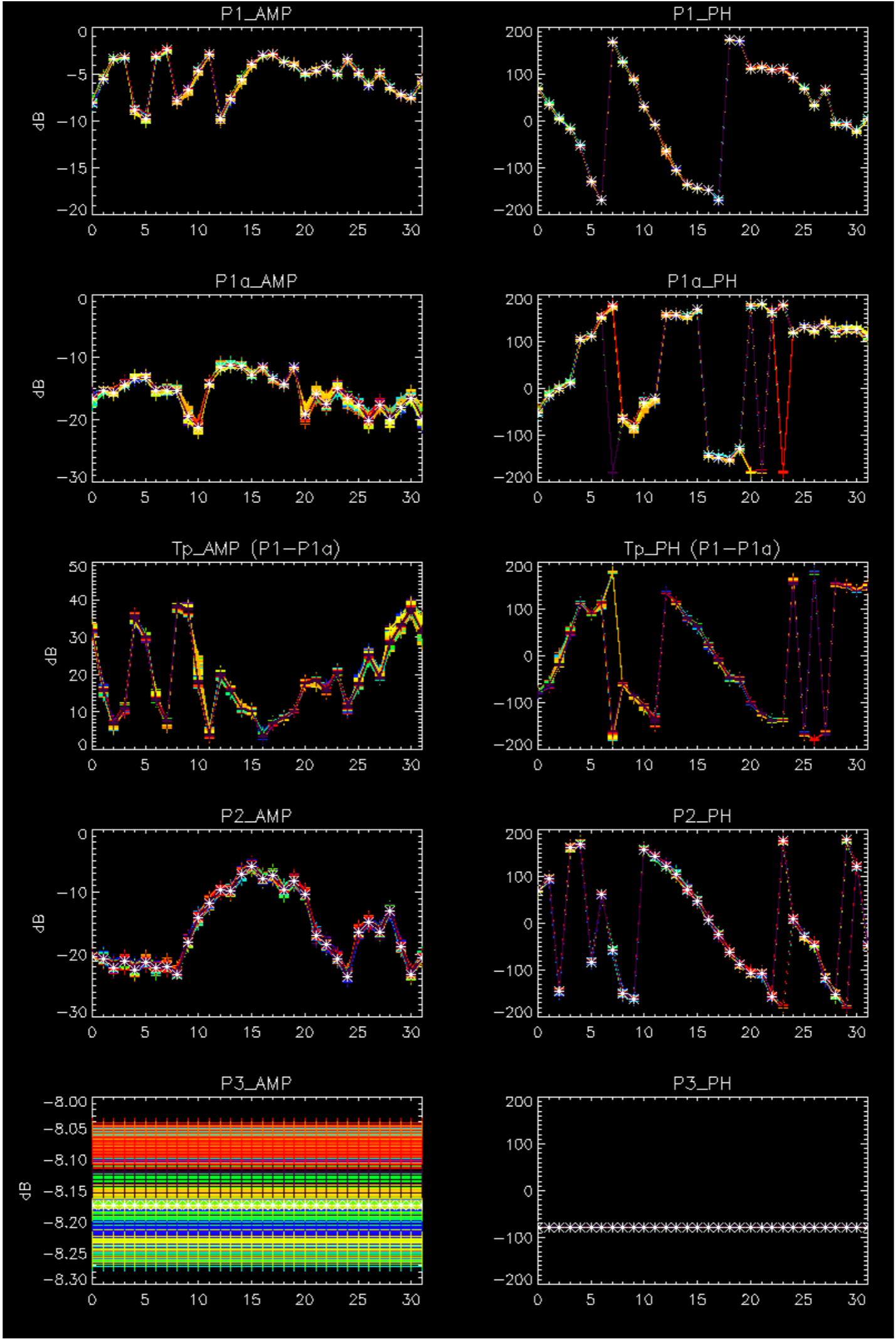
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

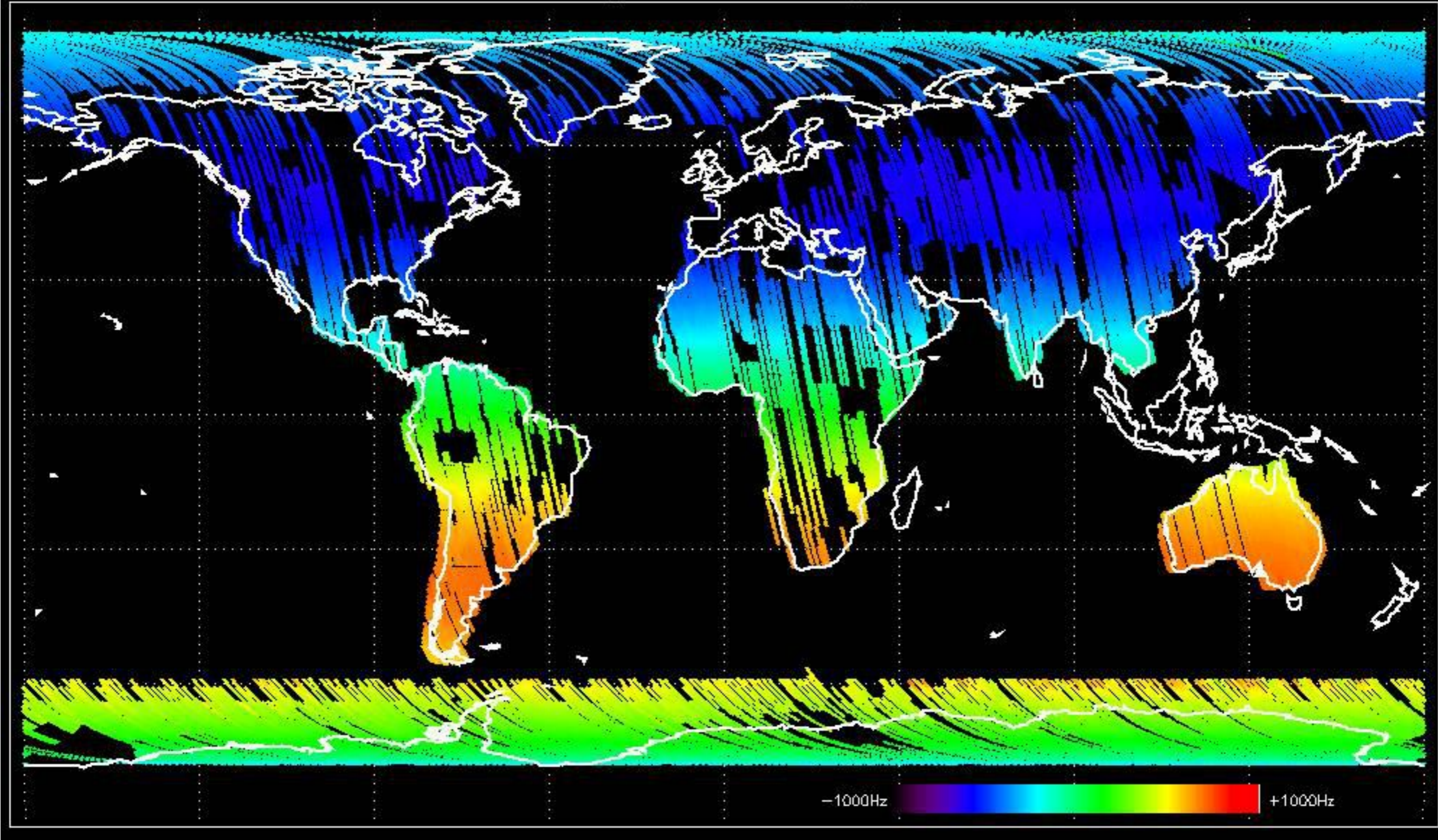
No anomalies observed.



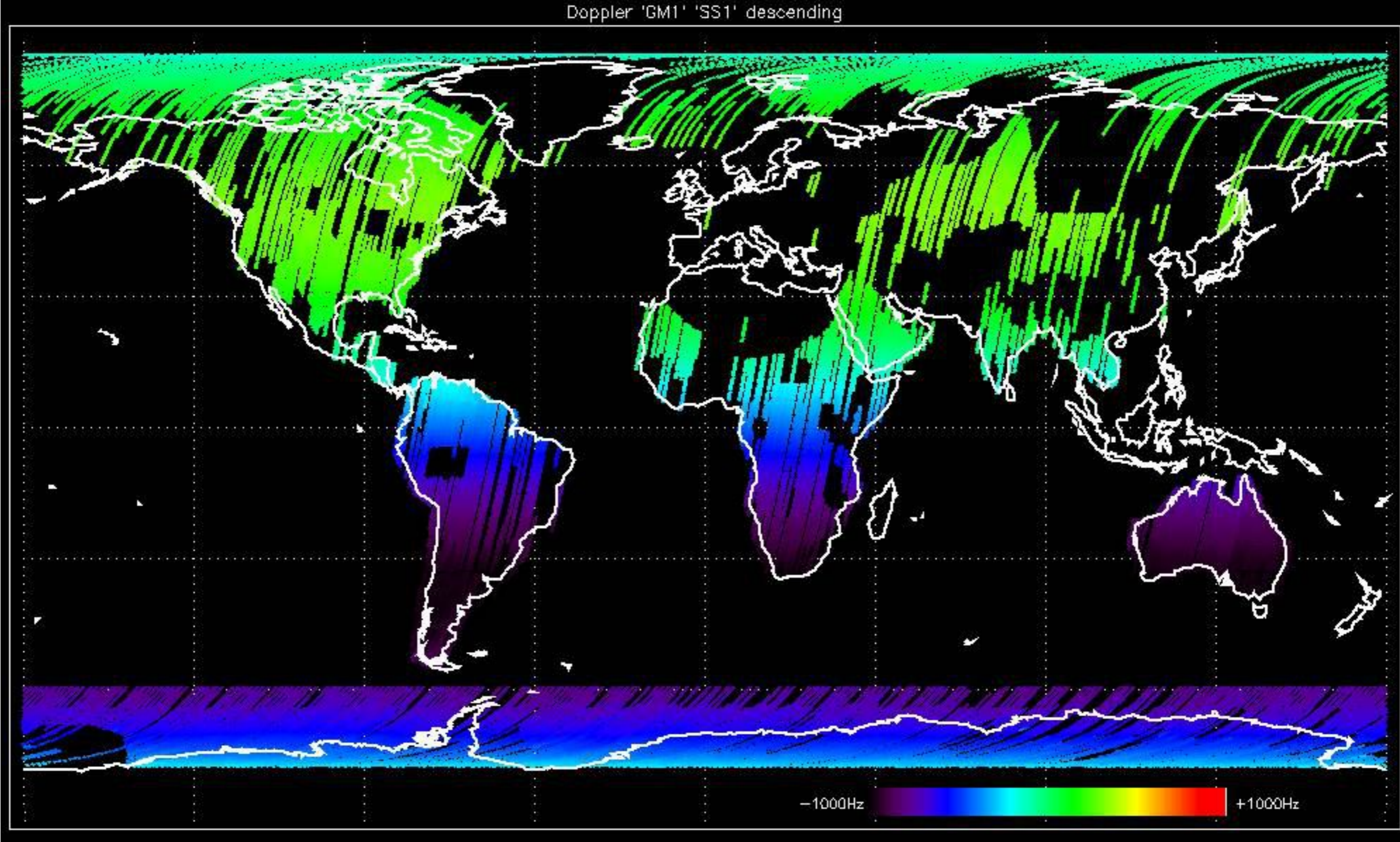


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

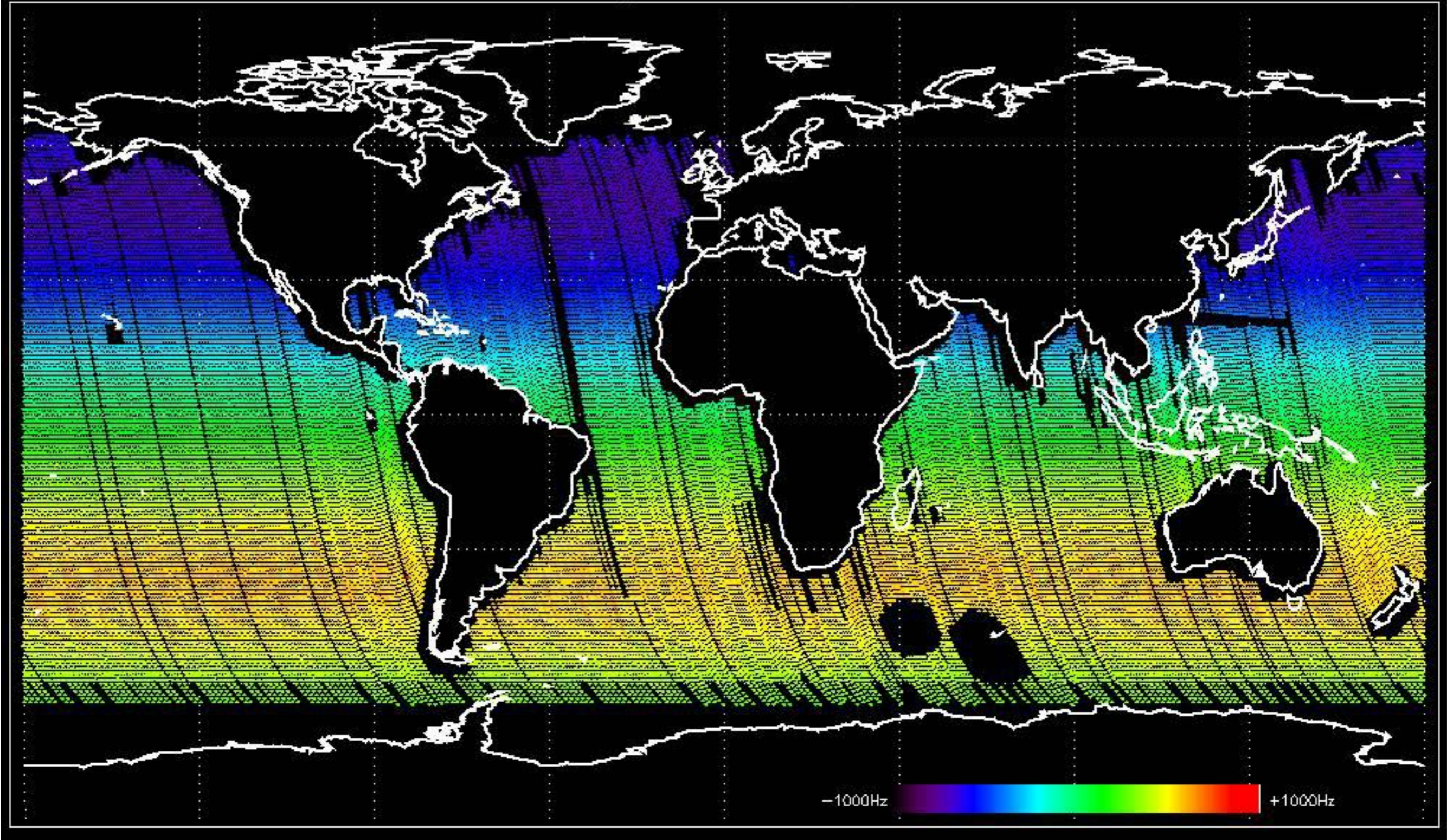
Doppler 'GM1' 'SS1' ascending



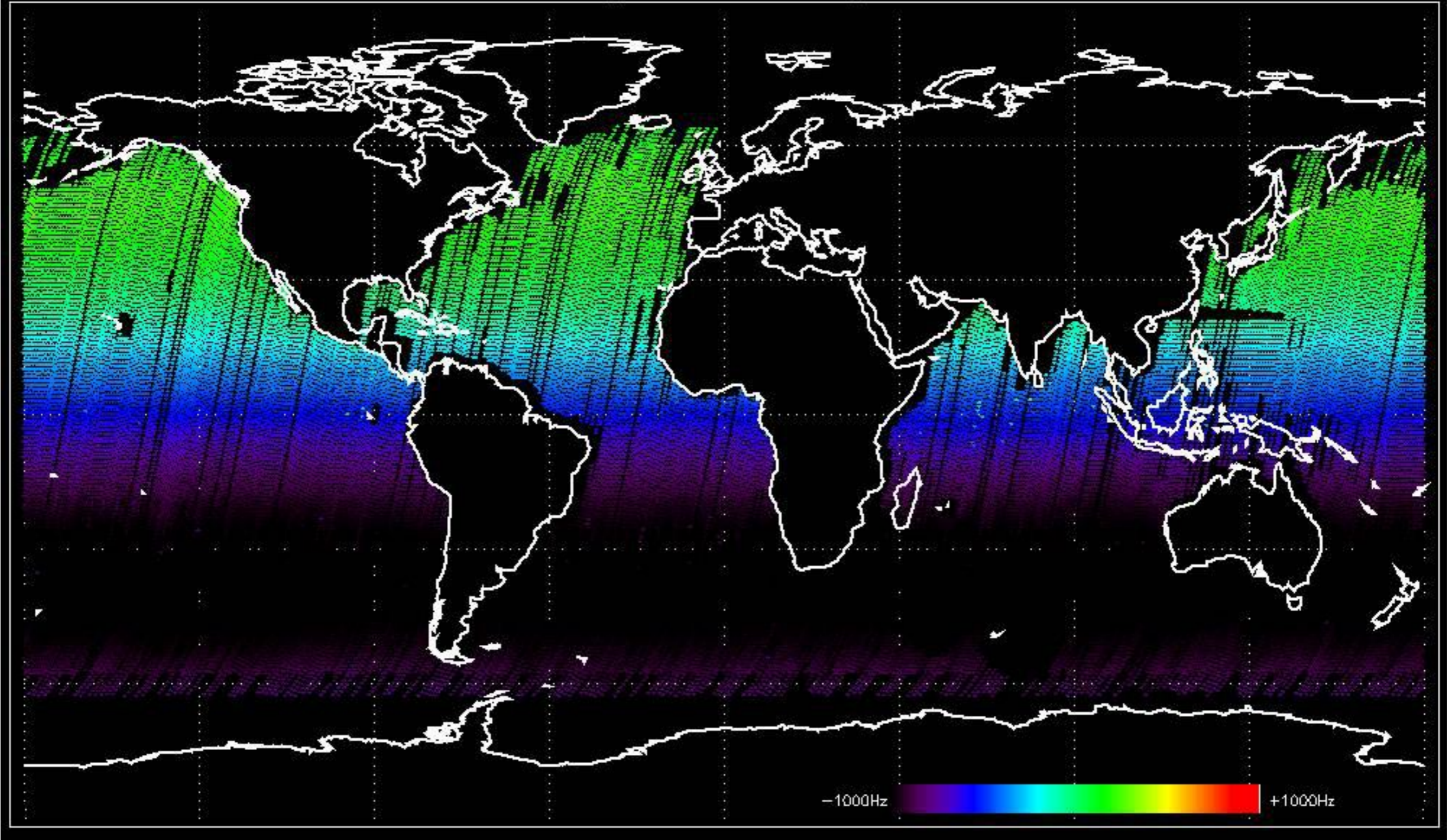
Doppler 'GM1' 'SS1' descending



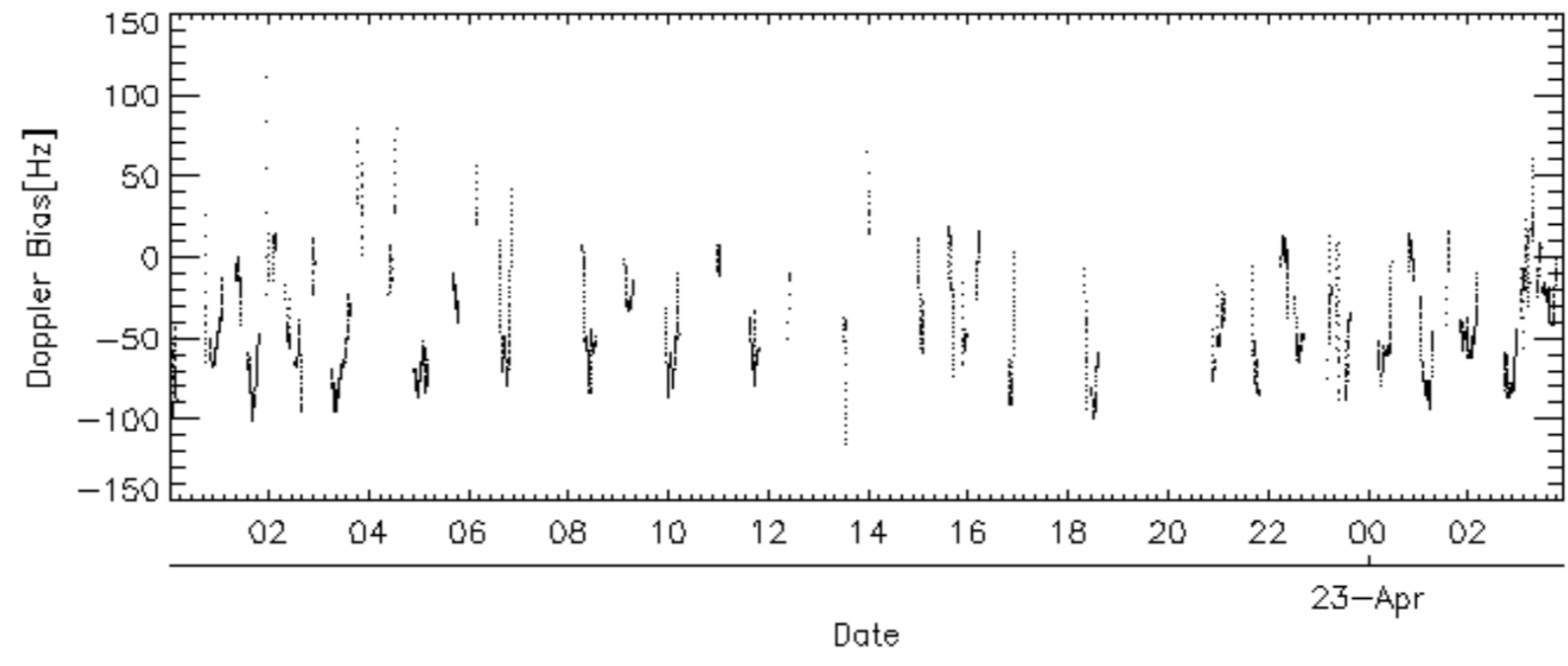
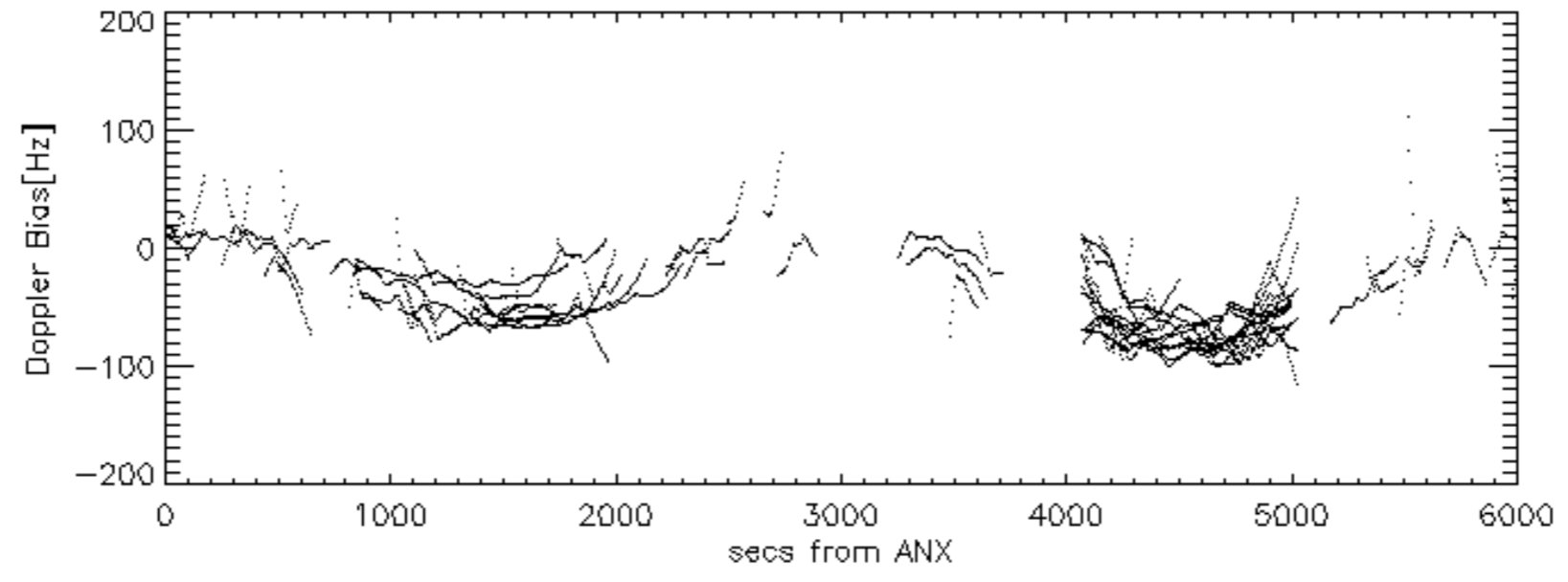
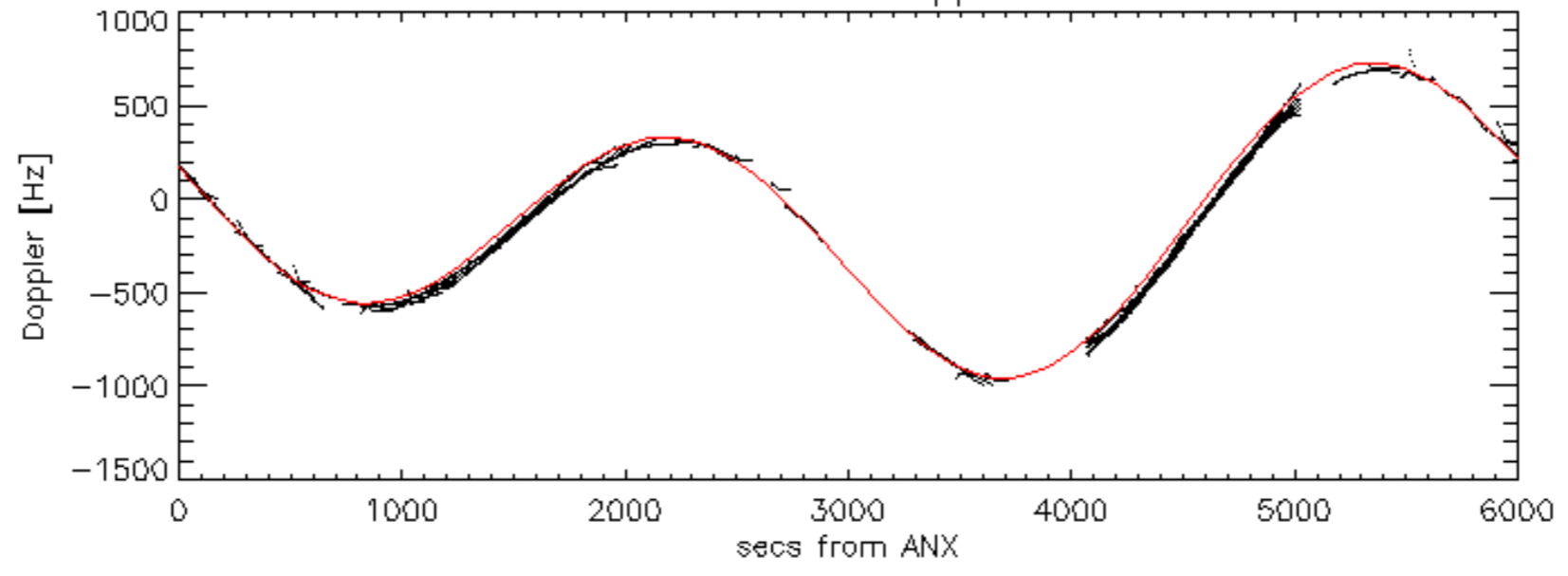
Doppler 'WVS' 'IS2' ascending

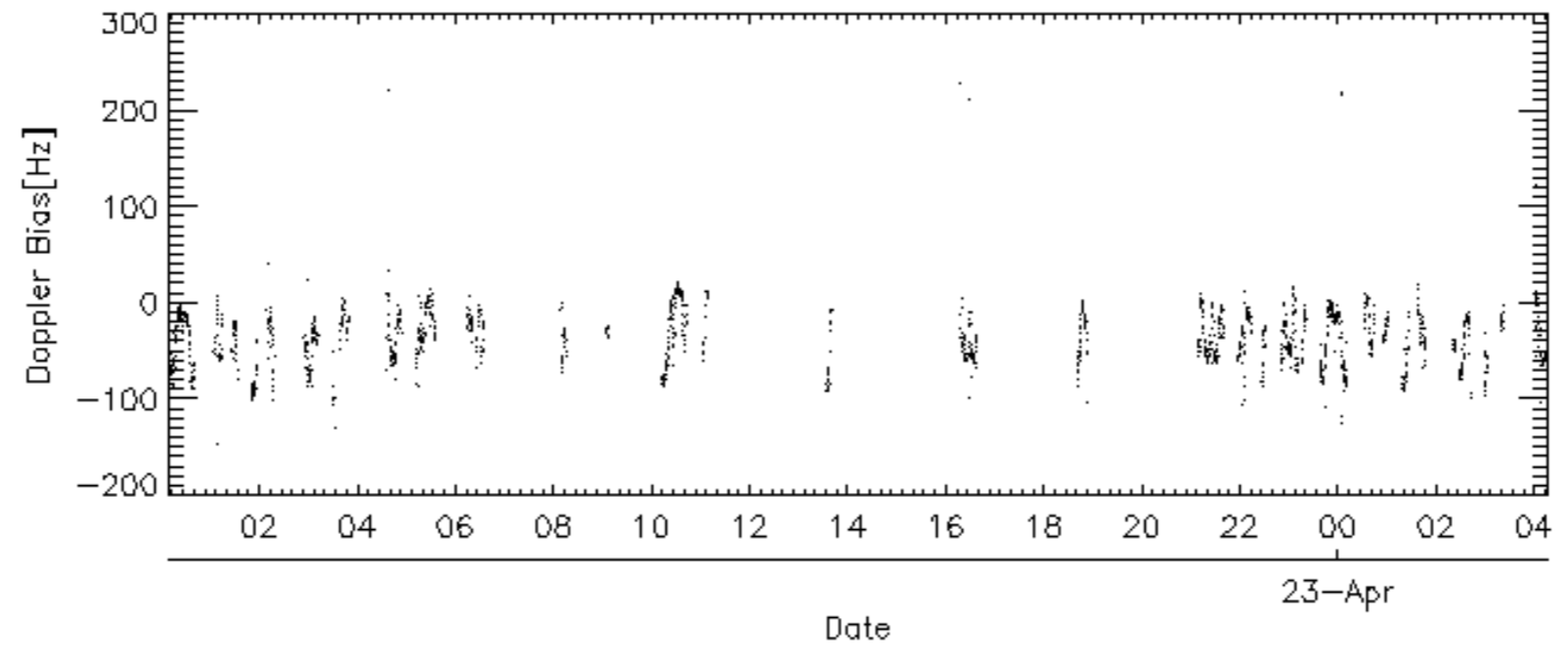
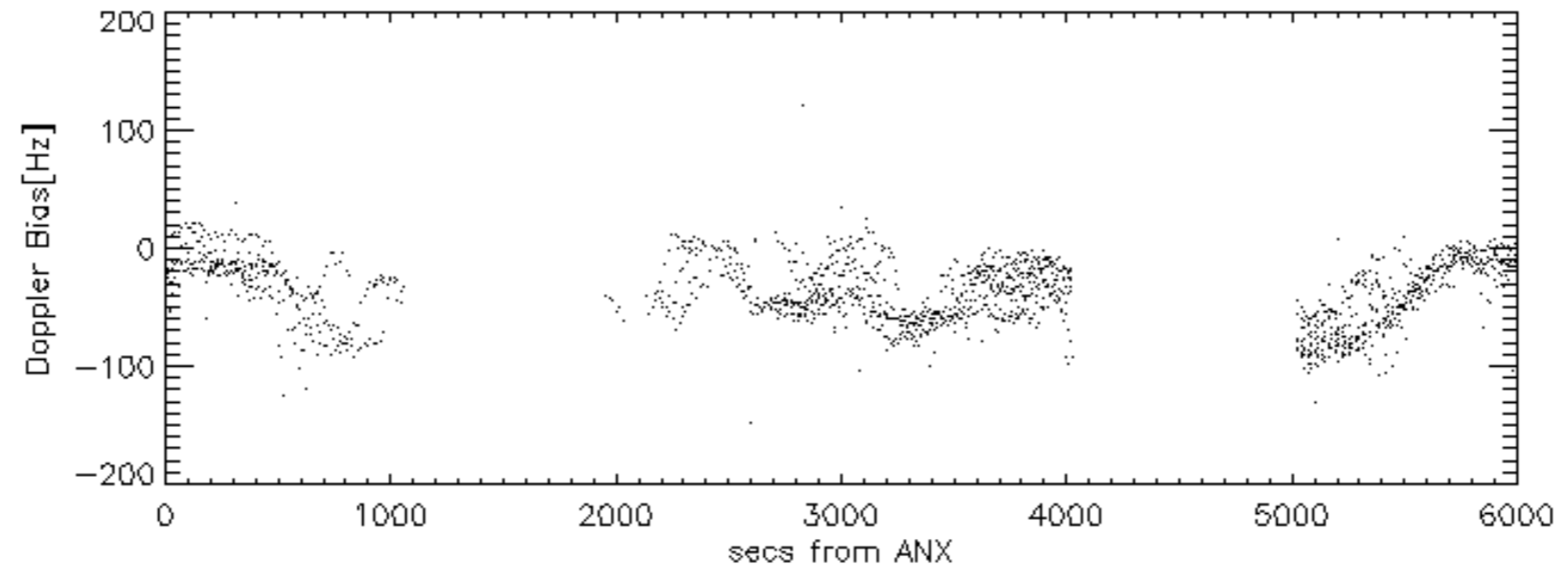
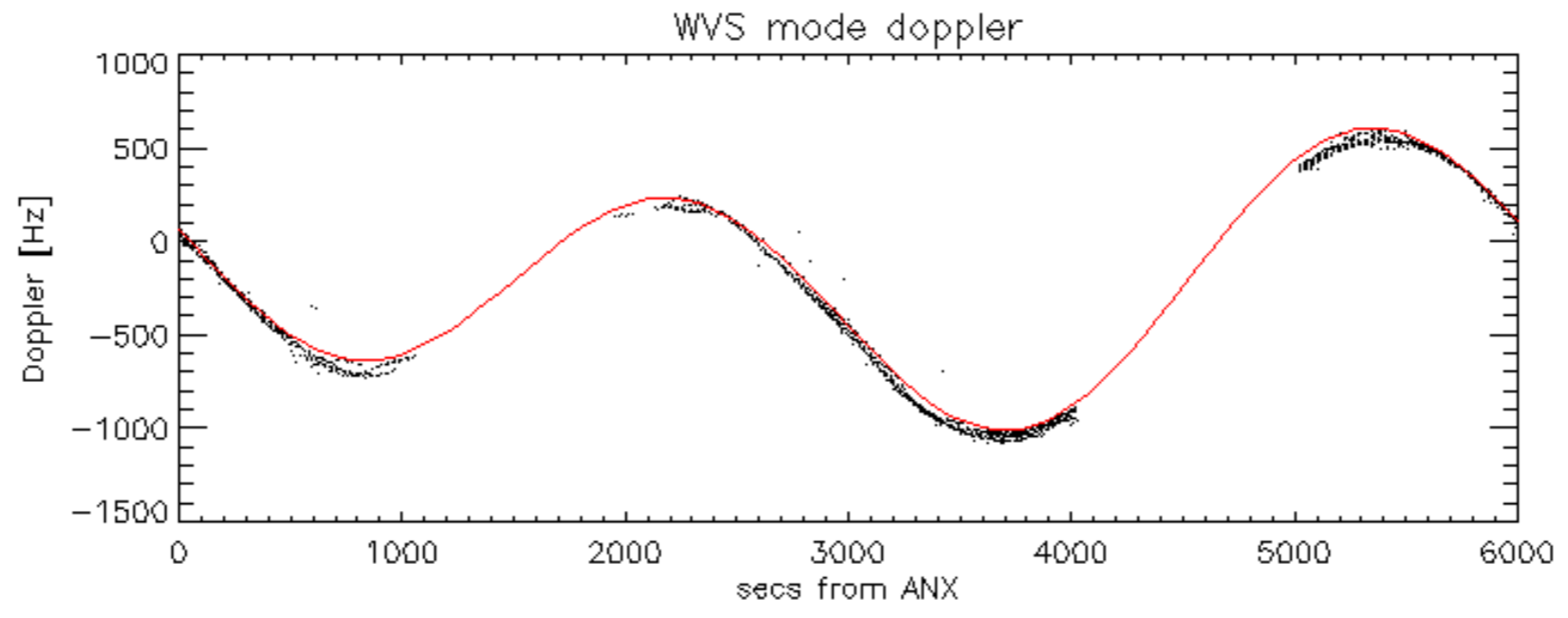


Doppler 'WVS' 'IS2' descending

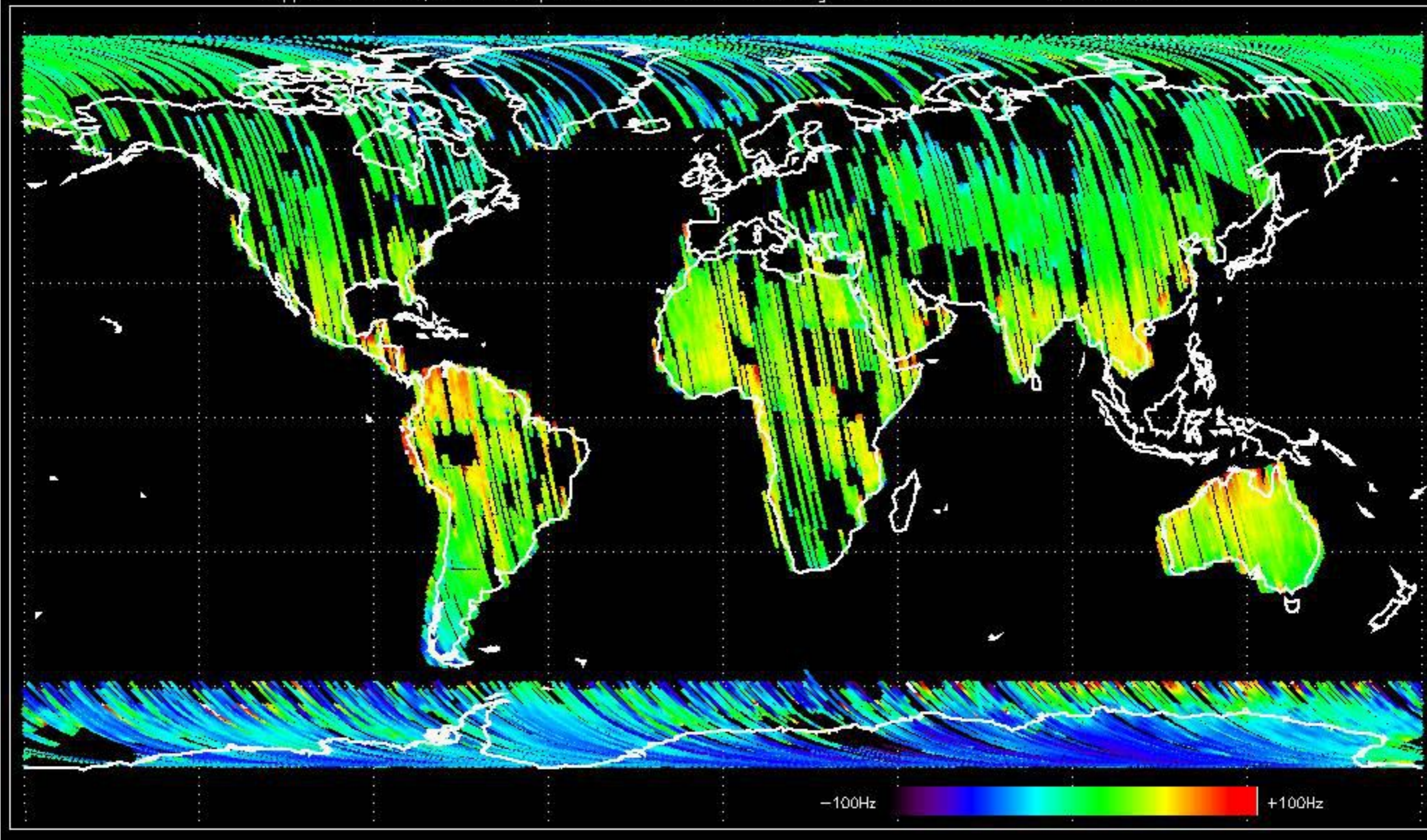


GM1 mode doppler

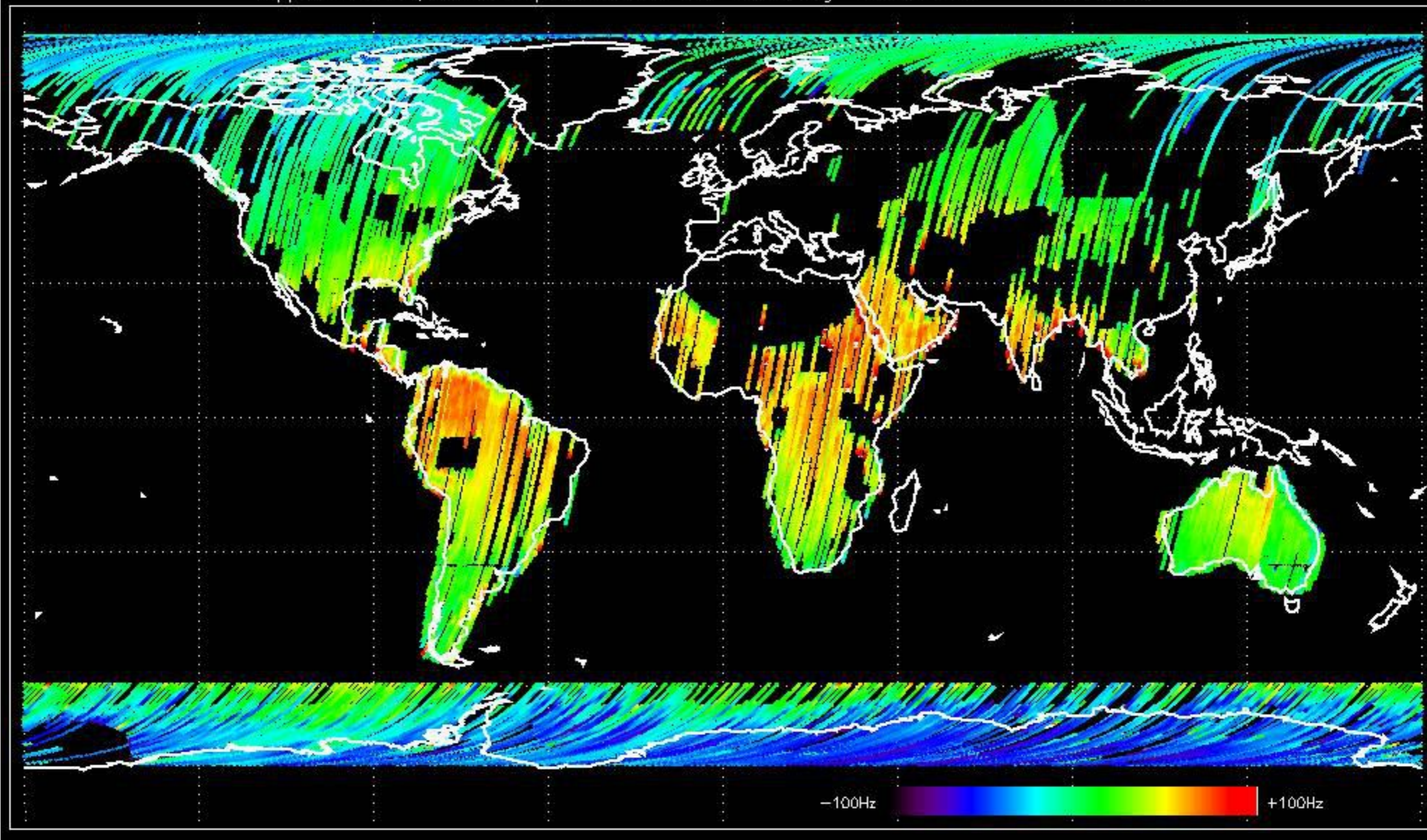




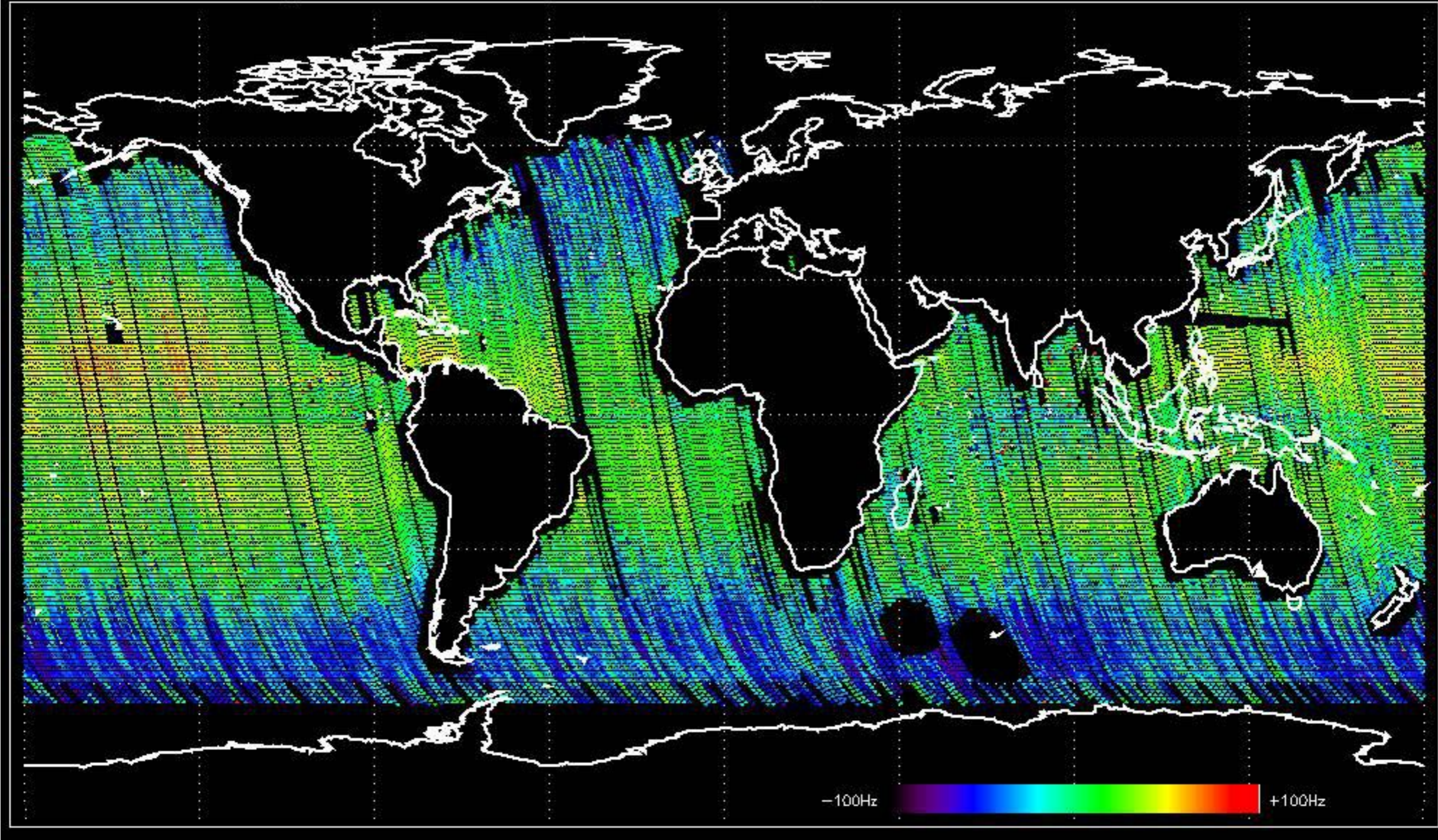
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -36.512512 Hz



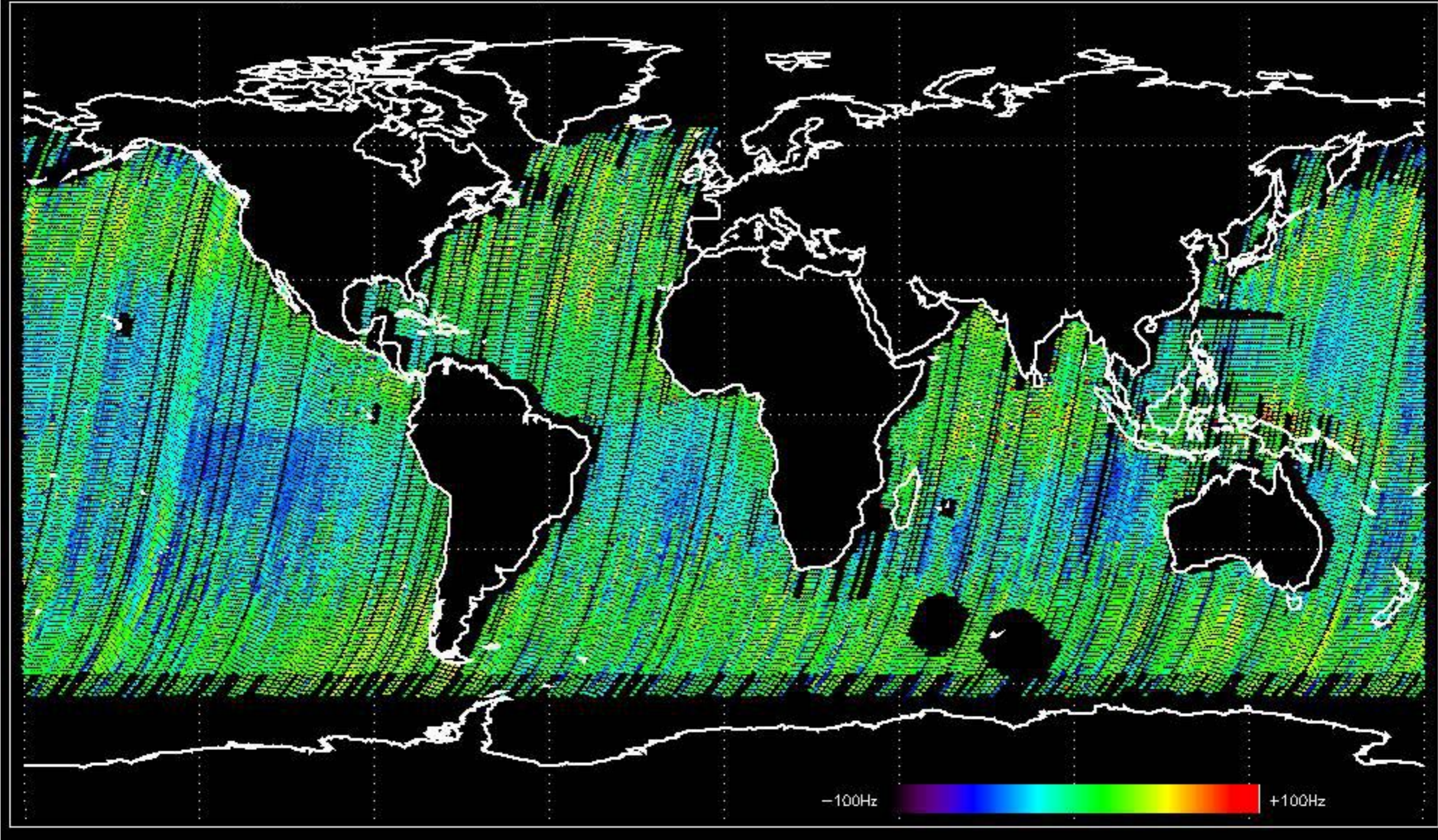
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.881587 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -34.581126 Hz

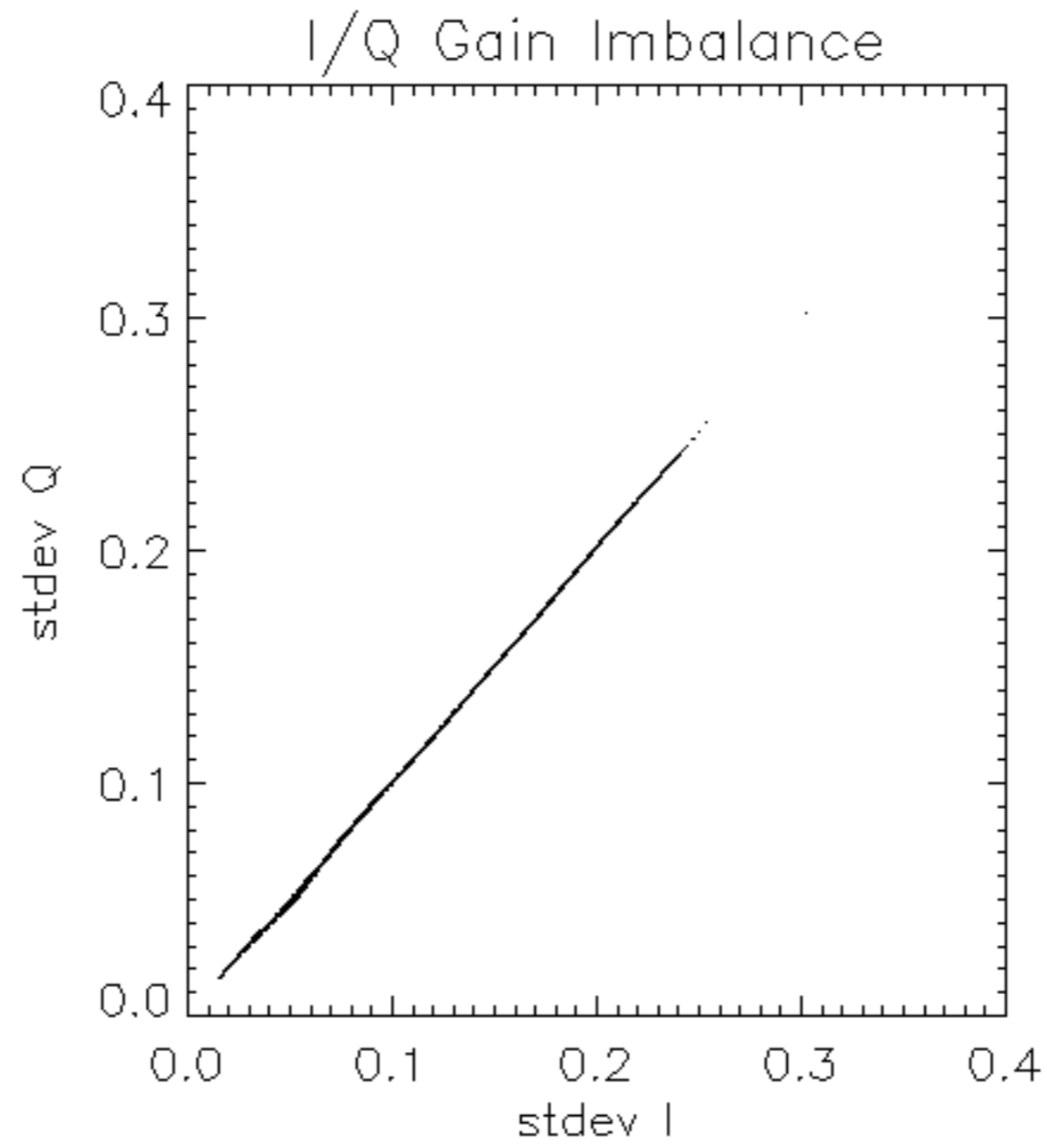


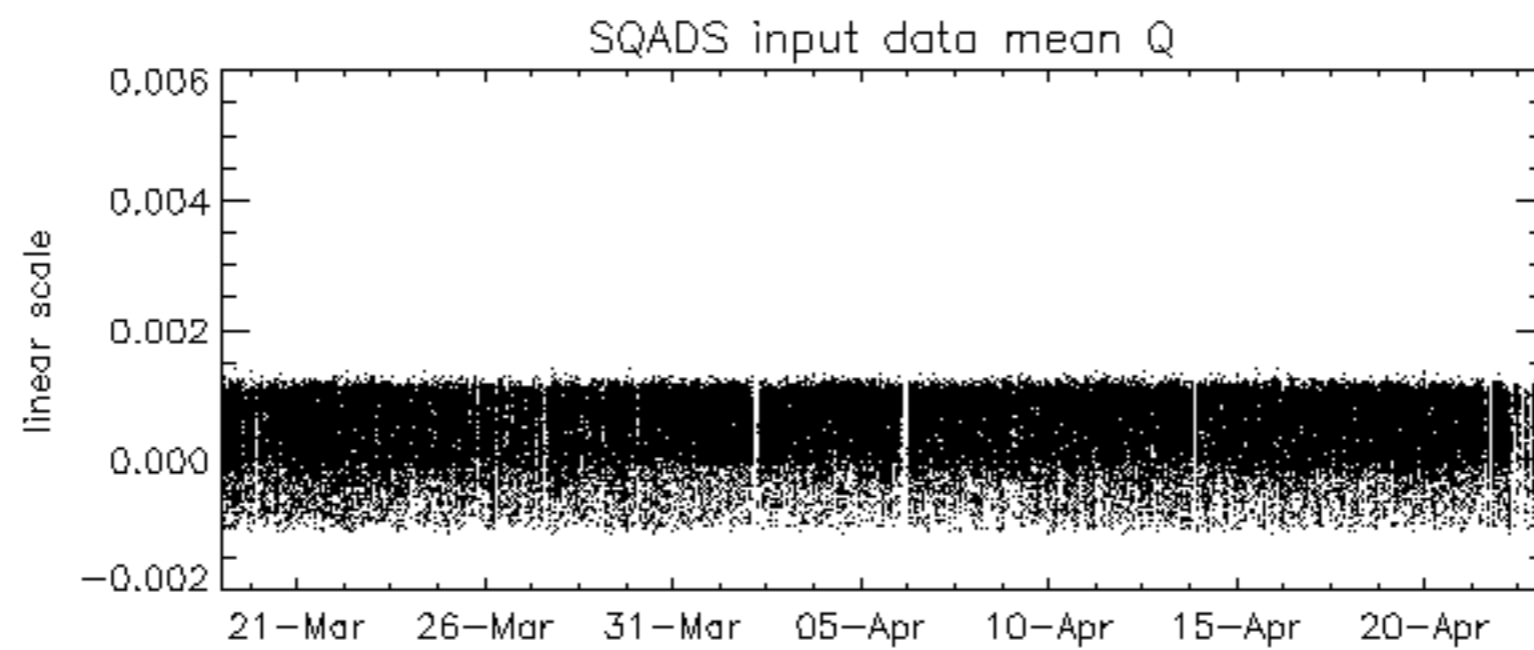
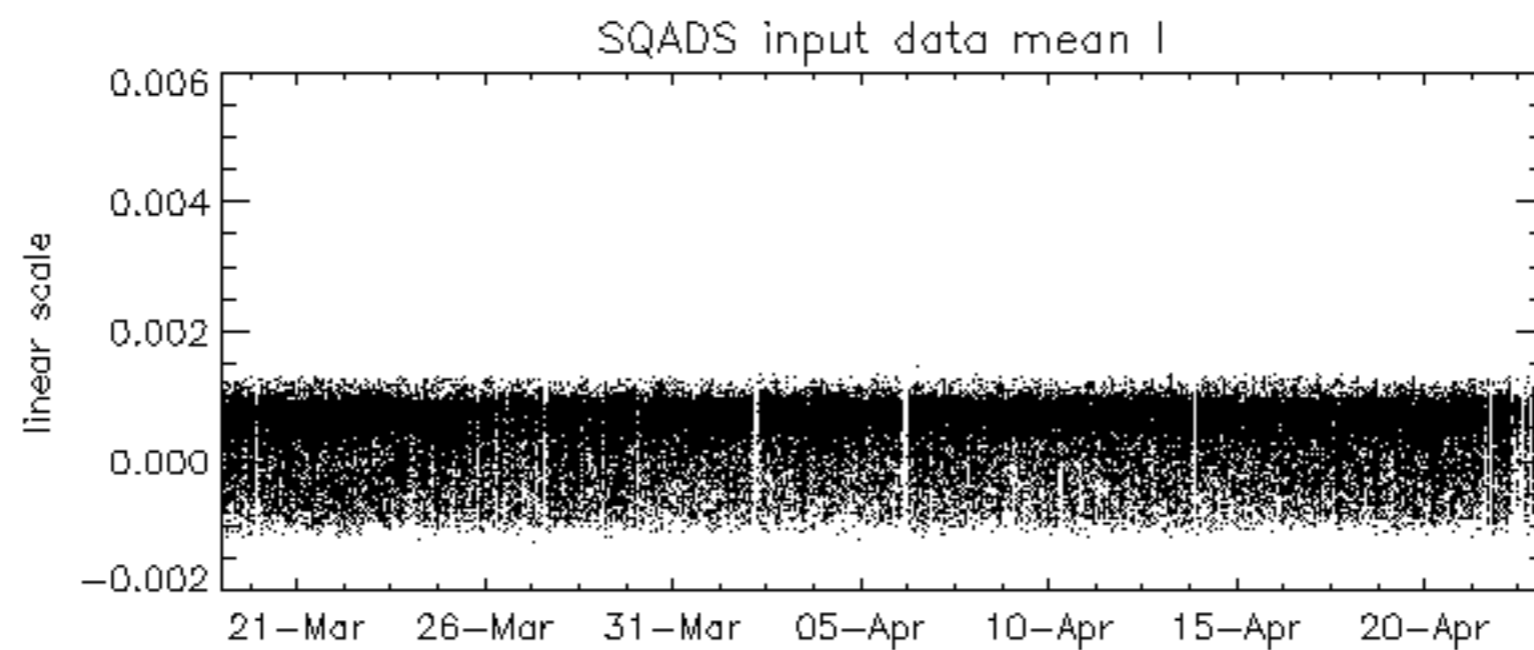
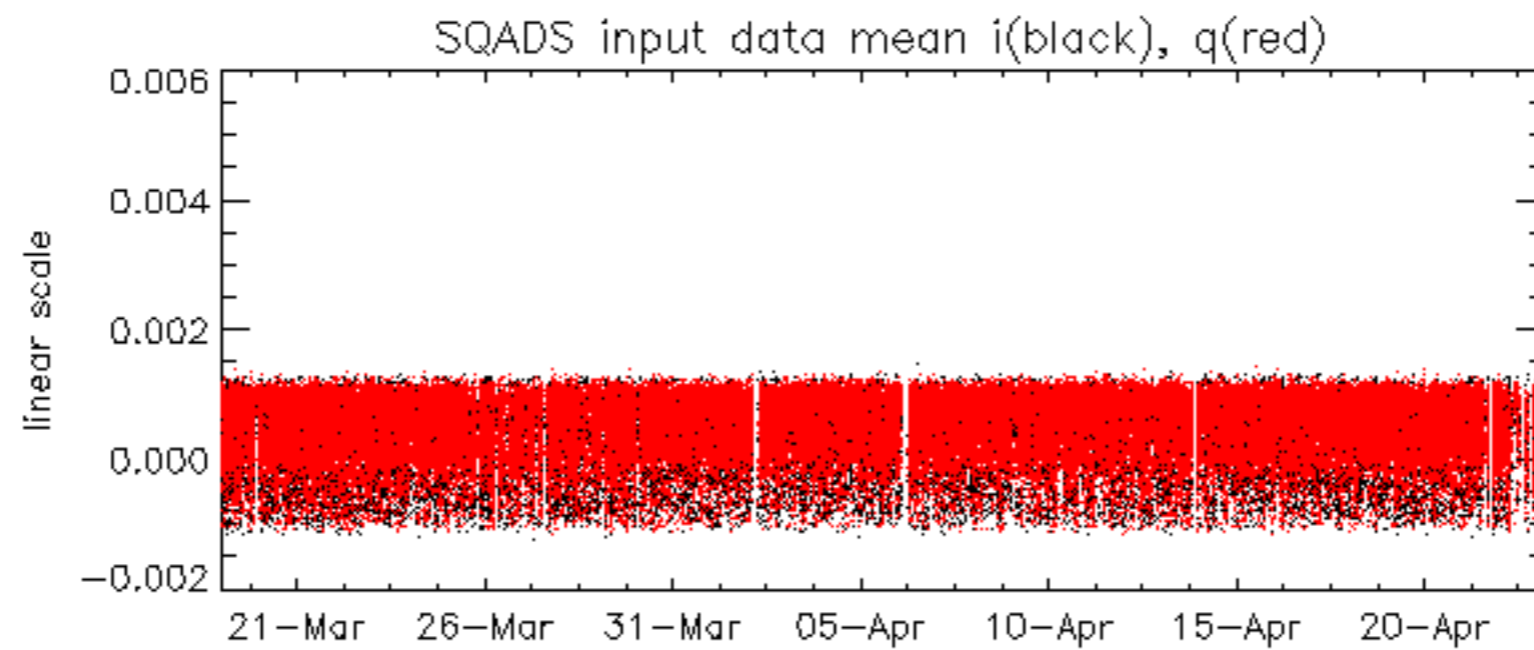
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.311377 Hz

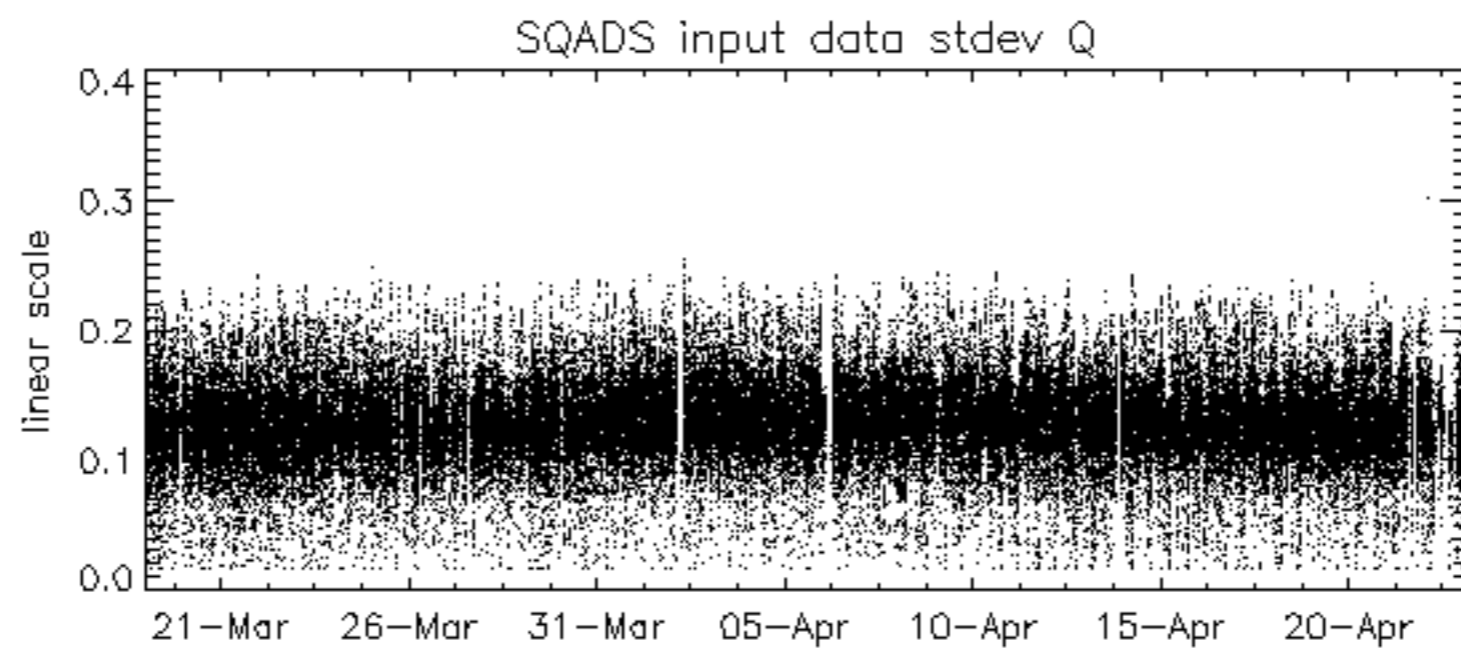
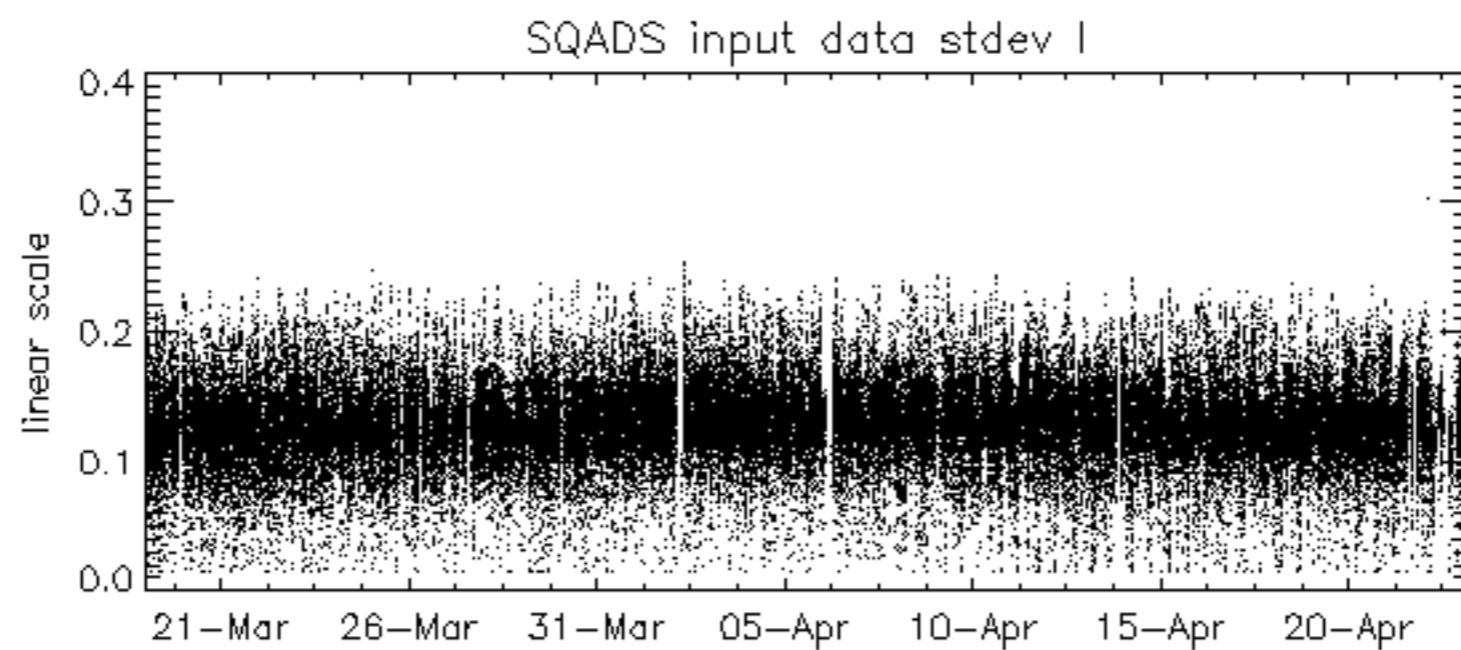
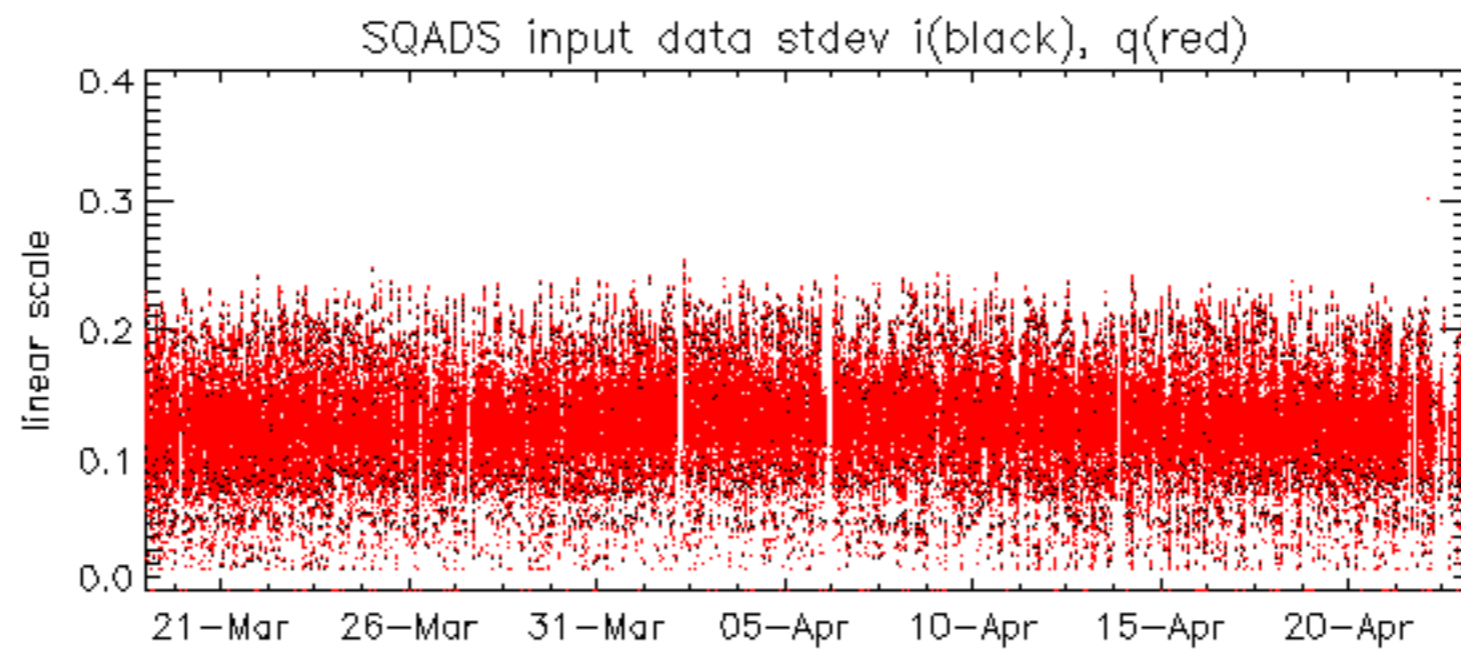


No anomalies observed on available MS products:

No anomalies observed.



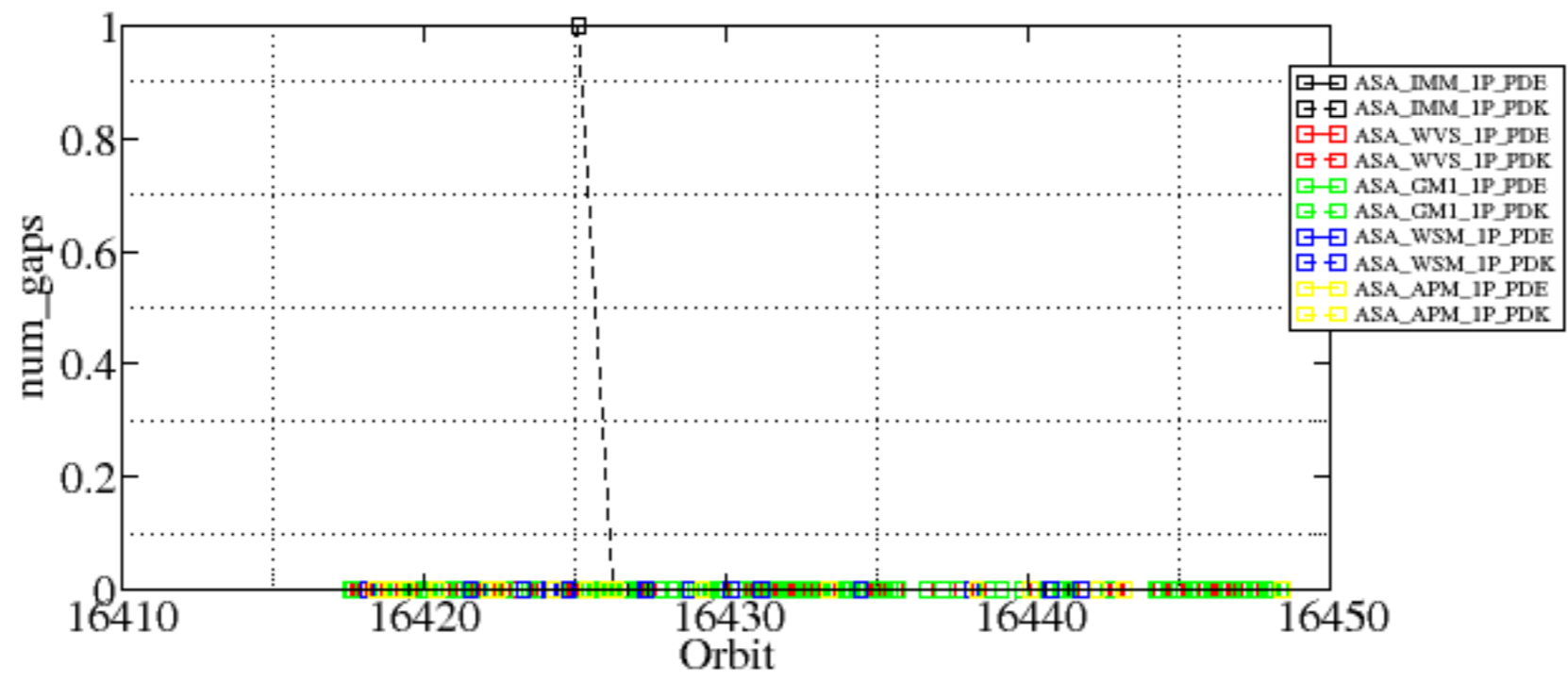


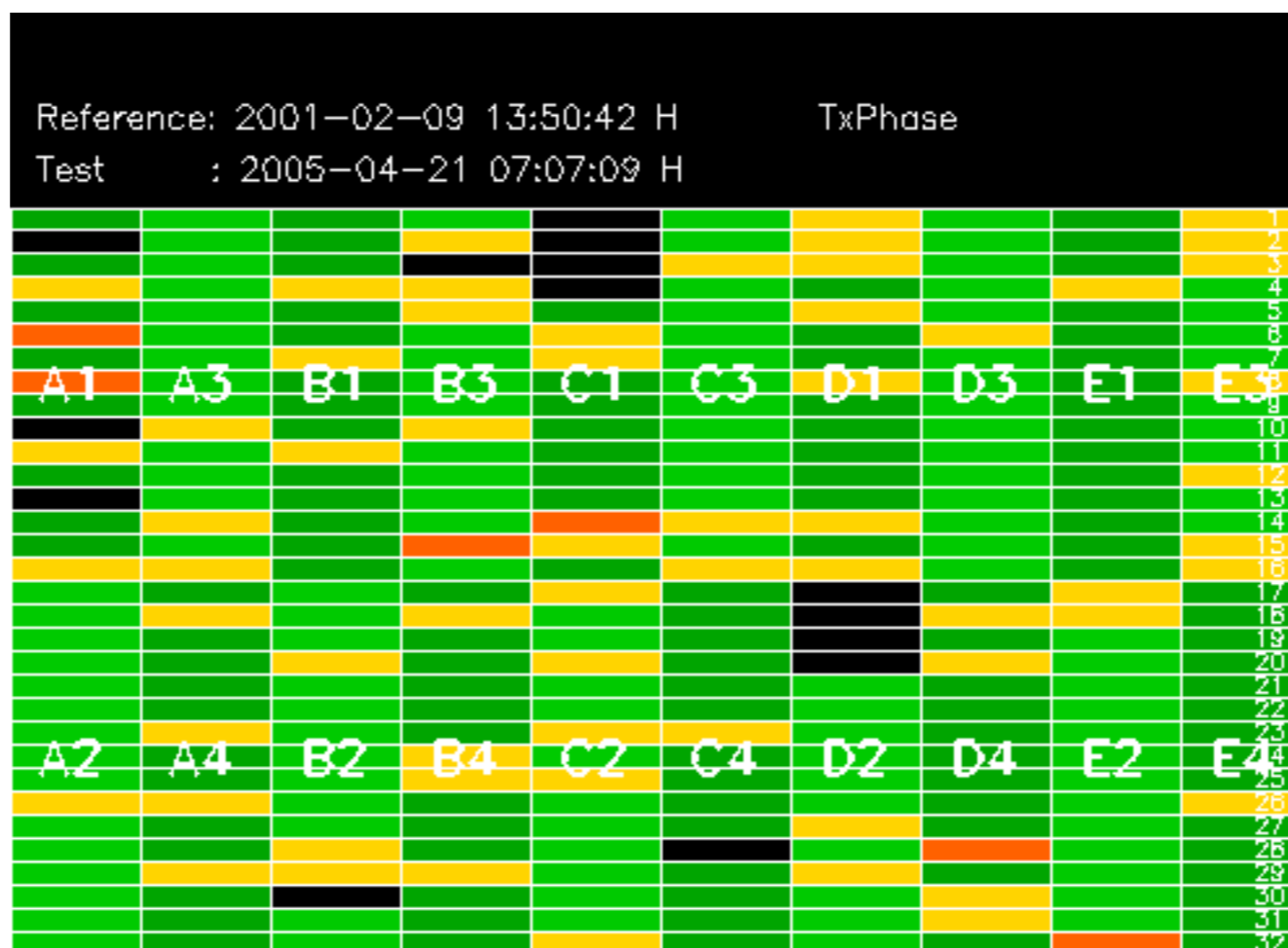


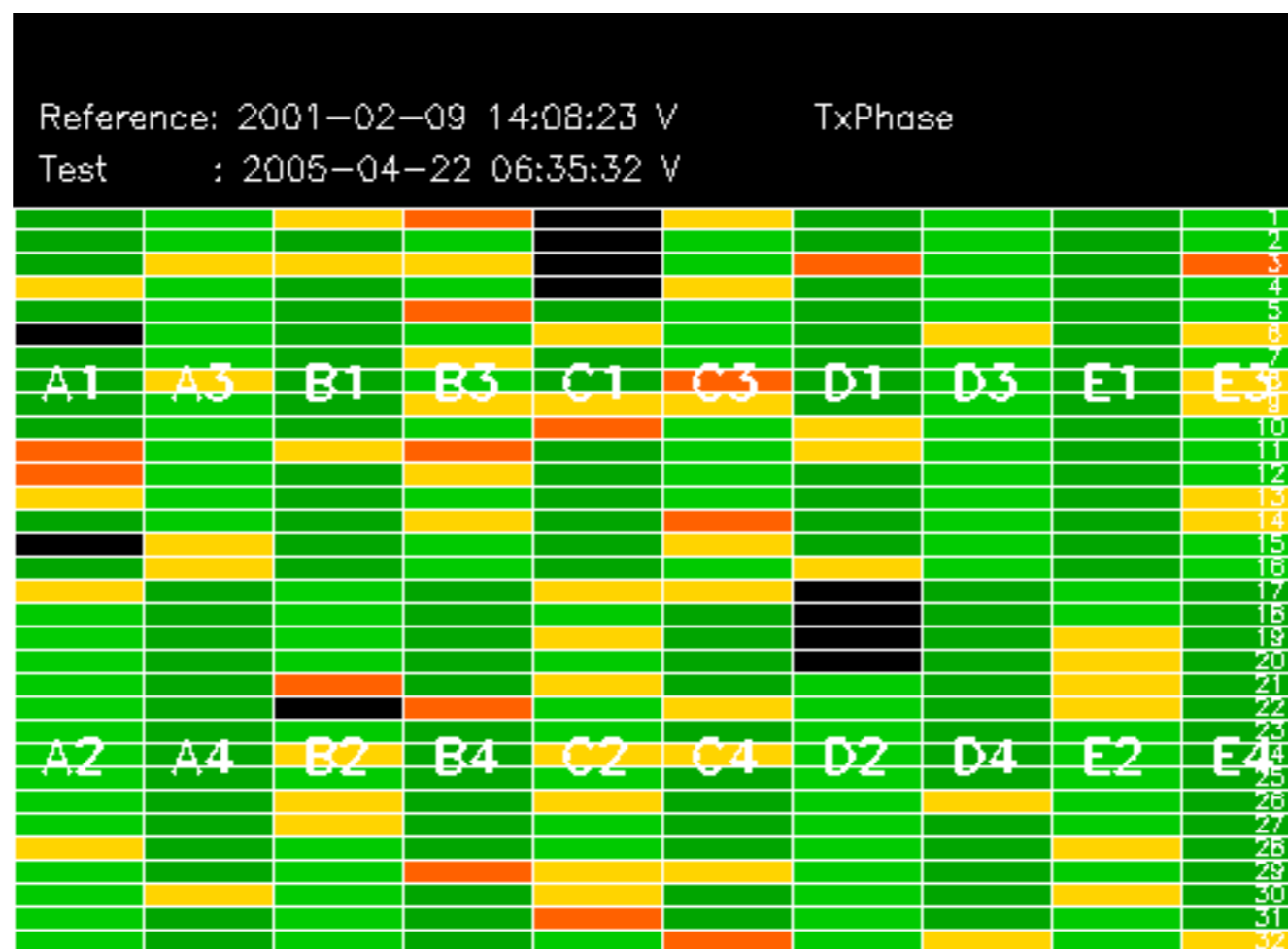
Summary of analysis for the last 3 days 2005042[123]

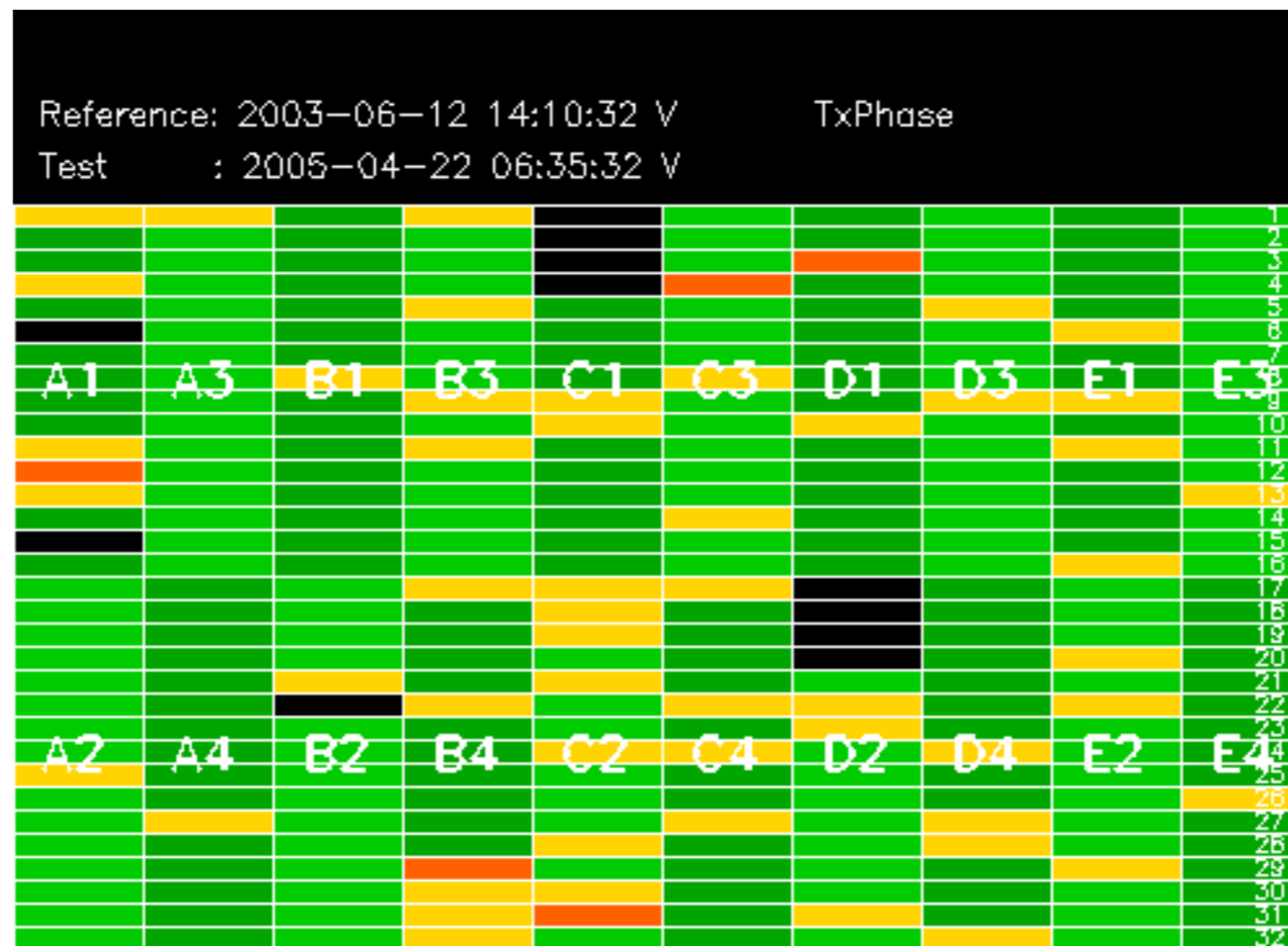
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

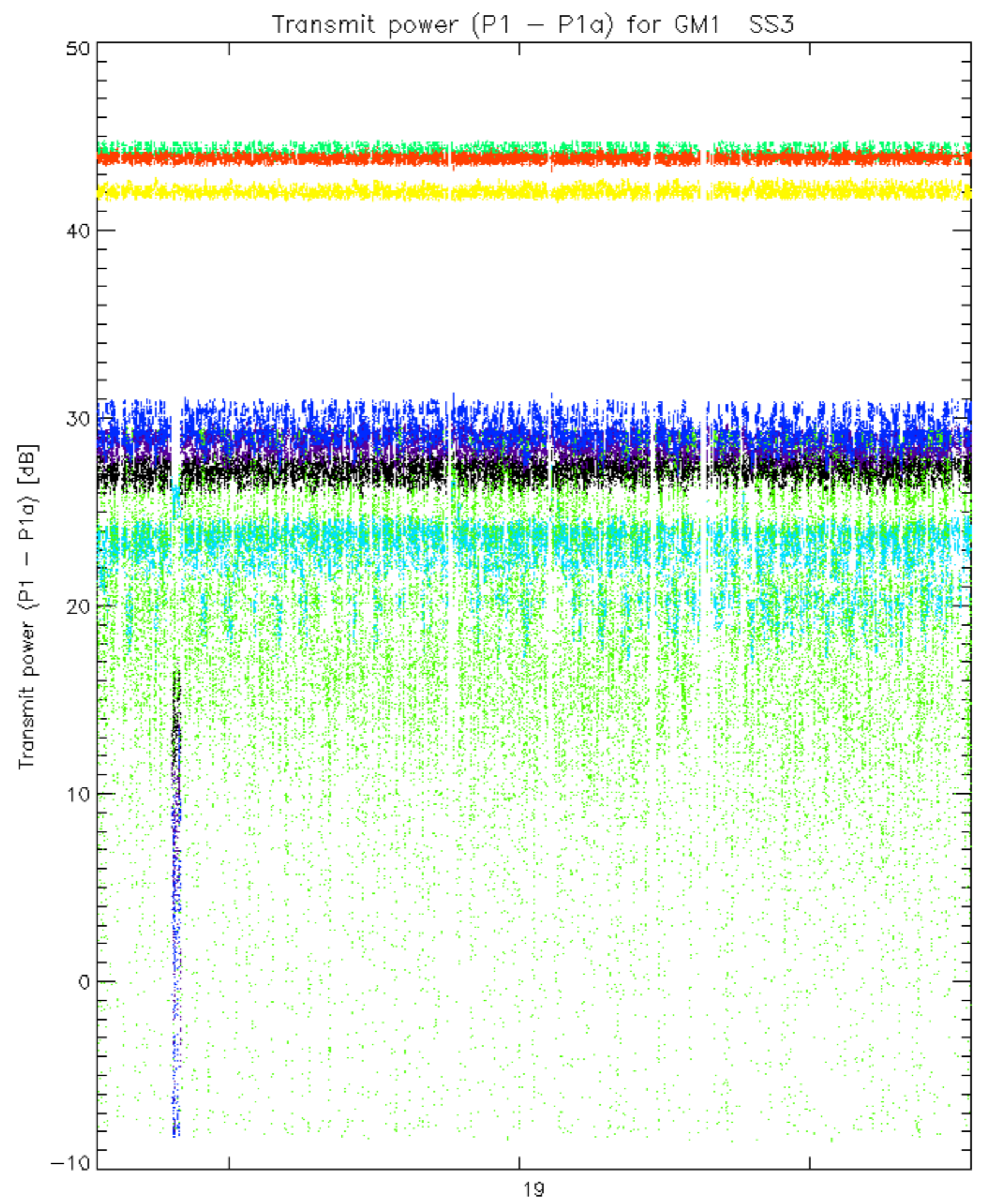
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050421_125414_000001212036_00339_16425_2813.N1	1	0
ASA_GM1_1PNPDK20050421_070832_000008822036_00335_16421_9019.N1	0	7
ASA_WSM_1PNPDK20050421_094756_000001462036_00337_16423_1117.N1	0	1
ASA_WSM_1PNPDK20050421_094808_000000672036_00337_16423_1231.N1	0	1
ASA_APM_1PNPDK20050421_082621_000000752036_00336_16422_1803.N1	0	2



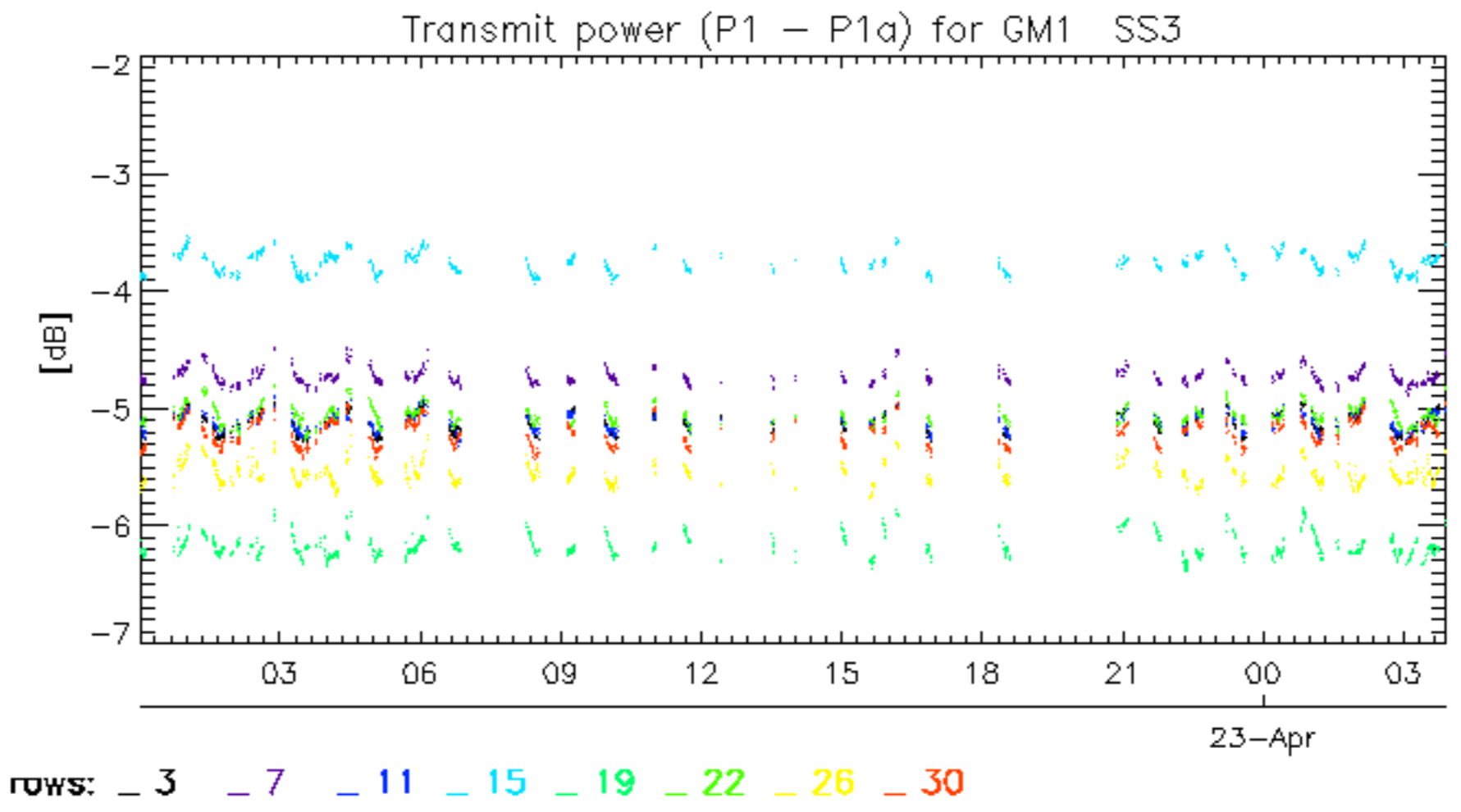


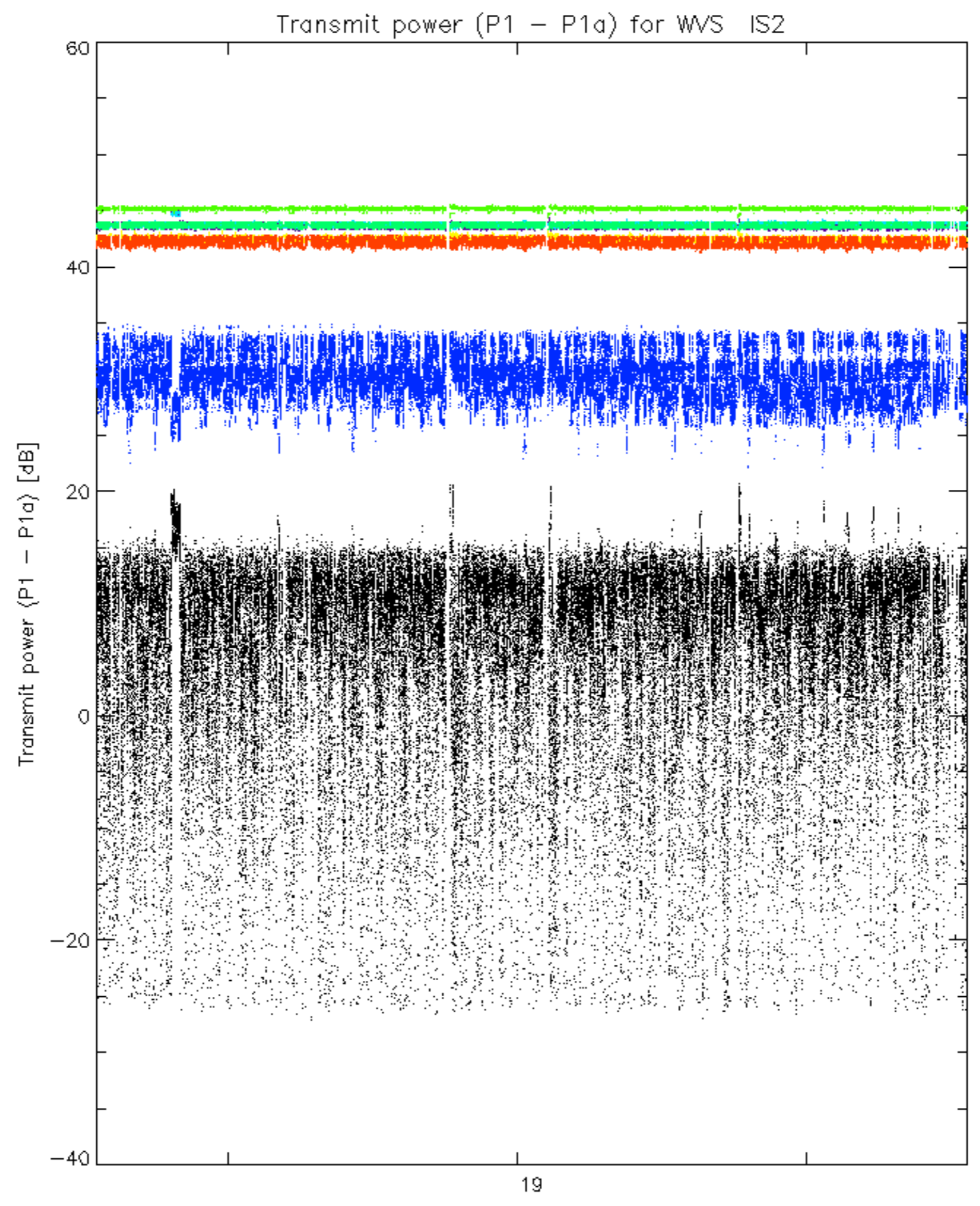




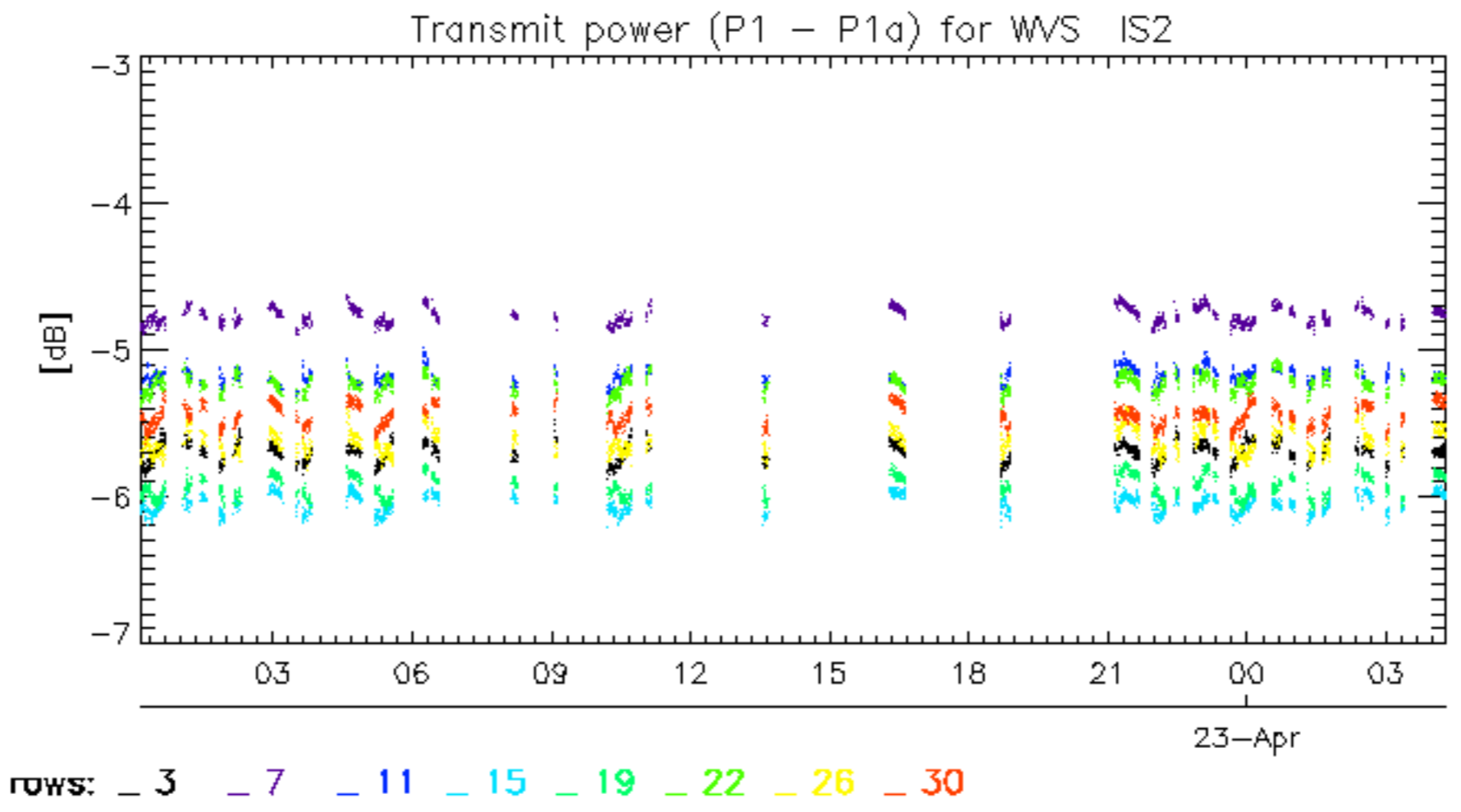


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



No unavailabilities during the reported period.